NOVEMBER 1981 NUMBER 447 -- Part II

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Data for May 1981, February 1980 & Miscellanea

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Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 447 NOVEMBER 1981

DATA FOR
MAY 1981
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SOLAR-GEOPHYSICAL DATA

No. 447

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
01	9395	PEKG			0109.0	0110.7	3.0	10.3			
	9395	PEKG	7	C	0109.0	0109.6		10.3			
	8800	LEAR	8	S	0110.1	0110.3	1.4	10			
	9400	TYKW	5	S	0110.5	0110.8	3.0	8.0	2.0		
	245	LEAR	8	S	0132.3	0132.3	.2	13			
	2800	TYKW	21	GRF	0315.0	0400	240.0	4.5	2.0		
	2800	TYKW	5	S	0320.0	0324	12.0	2.0	1.0		
	3750	TYKW	20	GRF	0330.0	0410	210.0	6.0	2.5		
	9400	TYKW	20	GRF	0330.0	0410	120.0	8.0	4.0		
	606	LEAR	8	S	0339.3	0339.5	.3	15			
	245	LEAR	8	S	0656.8	0656.8	.2	64			
	430	KRAK	2	S/F	0709.5	0710.0	1.0	44.0	6.0		
	260	ONDR	42	SER	0736.0	0840.7	104.0	20.0			
	260	ONDR	42	SER	1031.0	1313	227.0	88.0			
	2650	DWIN	45	C	1034.0	1036	4.0	100.0	60.0		
	2800	OTTA	20	GRF	1305.0	1415	205.0	4.6	2.3		
	2800	OTTA	240	R	1705.0	1715	10.0	3.2	1.6		
	2800	OTTA	21	GRF	1725.0	1813	230.0	7.2	2.4		
	2800	OTTA	1	S	1808.0	1808.0	2.0	2.2	1.2		
	1000	TYKW	45	C	2136.0	2138.0	5.0	200.0	40.0		
	2000	TYKW	45	C	2136.0	2137.6	3.0	400.0	100.0		
	500	HIRA	46	C	2136.6	2137.0	6.0	140.0	8.0		O
	2800	OTTA	47	GB	2136.7	2137.9	4.0	765.0	69.0A		
	606	SGMR	4	S/F	2136.8	2137.3	3.8	36			
	9400	TYKW	5	S	2137.0	2137.7	1.5	72.0	20.0		
	3750	TYKW	45	C	2137.0	2137.6	2.0	166.0	35.0		
	9400	TYKW	29	PBI	2138.5		30.0	6.0	2.5		
	3750	TYKW	29	PBI	2139.0		60.0	7.0	2.5		
	2000	TYKW	29	PBI	2139.0		40.0	11.0	3.0		
	2800	OTTA	29	PBI	2140.7	2140.7	170.0	7.0			
02	208	VORO	44	NS	2100.0E		360.0D		8.0		
	2695	LEAR	8	S	0020.1	0020.3	.2	10			
	15400	LEAR	8	S	0020.1	0020.3	.4	20			
	245	PALE	4	S/F	0036.1	0039.6	5.9	110			
	1415	LEAR	4	S/F	0155.8	0156.1	3.2	08			
	606	LEAR	8	S	0155.8	0156.1	1.0	24			
	606	PALE	8	S	0155.8	0155.8	.3	25			
	2000	TYKW	5	S	0155.8	0156.2	2.0	3.0	.7		
	3750	TYKW	5	S	0155.8	0156.1	2.0	6.0	2.0		
	1000	TYKW	5	S	0156.0	0156.2	1.0	2.5	.7		
	2695	LEAR	4	S/F	0158.8	0156.1	2.9	05			
	4995	LEAR	4	S/F	0158.8	0156.1	3.4	05			
	9375	YUNN	1	S	0220.0	0222	7.0				RIF 3
	410	LEAR	8	S	0246.8	0246.8	.2	11			
	606	LEAR	8	S	0246.8	0246.8	.2	00			
	3750	TYKW	5	S	0345.5	0346.0	1.0	7.0	2.5		
	2000	TYKW	5	S	0345.8	0346.0	1.0	3.0	1.0		
	3750	TYKW	29	PBI	0346.5		22.0	3.0	1.5		
	3750	TYKW	5	S	0606.0	0606.5	3.0	4.0	1.0		
	245	LEAR	8	S	0648.6	0649.3	1.2	42			
	9375	YUNN	40	F	0750.0	0751	3.0				RIF 9
	260	ONDR	42	SER	0750.0	0902.6	158.0	20.0			
	127	TORN	8	S	1119.2	1119.6	.6	20.0	10.0		
	260	ONDR	42	SER	1120.0	1309	164.0	88.0			
	6100	KISV	1	S	1138.0	1139	2.0	3.0			
	2800	OTTA	1	S	1340.0	1342	7.0	2.8	1.4		
	2800	OTTA	20	GRF	1420.0	1430	140.0	2.6	1.2		
	2800	OTTA	4	S/F	1729.0	1730	2.0	23.4	11.0		
	1415	SGMR	4	S/F	1729.1	1730.1	2.2	27			
	606	SGMR	8	S	1729.3	1729.5	1.3D	35			
	2800	OTTA	29	PBI	1731.0	1731	5.0	3.8	1.4		
	2800	OTTA	1	S	1938.0	1941	6.5	2.4	1.2		
	245	PALE	8	S	1940.6	1940.8	.7	170			
	2800	OTTA	20	GRF	2023.0	2026	20.0	2.8	1.0		
	3750	TYKW	5	S	2245.5	2246.3	3.5	5.0	1.5		
03	260	ONDR	43	NS	0746.0	1315.6	339.0D	98.0			
	208	VORO	44	NS	2100.0E		360.0D		13.0		
	3750	TYKW	5	S	0030.0	0030.4	1.0	2.0	.5		
	3750	TYKW	5	S	0204.0	0205.3	9.0	4.5	1.0		
	2000	TYKW	5	S	0205.0	0205.4	2.0	1.5	.5		
	9400	TYKW	5	S	0207.0	0208.5	5.0	2.0	1.0		
	245	LEAR	8	S	0215.1	0215.1	.5	16			
	245	PALE	8	S	0224.0	0224.6	1.0	10			
	410	PALE	8	S	0224.0	0224.3	.6	47			
	410	LEAR	8	S	0224.1	0224.3	.4	44			
	2800	TYKW	20	GRF	0400.0	0500	16.0	3.0	1.5		
	3750	TYKW	20	GRF	0415.0	0500	150.0	4.0	2.0		
	9375	YUNN	8	S	0449.0	0450	1.0				RIF 11
	245	LEAR	8	S	0456.6	0456.8	.5	20			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
03	9375	YUNN	1 S	0502.0	0503	2.0				RIF 13
	1000	TYKW	8 S	0540.9	0541.1	.4	7.0	1.5		
	245	LEAR	8 S	0640.8	0640.8	.3	62			
	9375	YUNN	46 C	0655.0	0702	8.0				RIF 24
	9375	YUNN	20 GRF	0715.0	0730	50.0				RIF 26
[	29	UPIC	4 S/F	0832.5	0832.8	.4				
[	33	UPIC	4 S/F	0832.5	0832.5	.6				
	9375	YUNN	4 S/F	0901.0	0903	3.0				RIF 15
	2800	OTTA	240 R	1150.0	1235	45.0	4.4	2.2		
[	29	UPIC	45 C	1205.7	1206.5	1.0				
[	127	TORN	8 S	1205.7	1206.3	1.0	140.0	70.0		
	33	UPIC	45 C	1205.9	1206.5	.9				
	2800	OTTA	20 GRF	1417.0	1417	23.0D	3.4			
	2800	OTTA	23 GRF	1450.0	2000	447.0	13.8	6.9		
	2800	OTTA	3 S	1941.0	1941.8	5.0	58.0	27.0		
	2800	OTTA	29 PBI	1946.0	1946	12.0	9.0	3.0		
	2800	OTTA	22 GRF	2123.5	2126.5	12.0	8.8			
[	200	HIRA	46 C	2132.6	2133.0	1.4	165.0	42.0		O
[	100	HIRA	48 C	2132.6	2134.7	2.6	100000.0	1000.0		
[	200	VORO	3 S	2133.0	2134	2.0	65.0			
[	245	PALE	8 S	2133.1	2133.1	.5	250			
04	33	UPIC	43 NS	0558.5		380.5D				
[	29	UPIC	43 NS	0602.0		386.3D				
[	127	TORN	43 NS	0620.0	1252.3	580.0D	160.0	4.0		V1
[	260	ONDR	43 NS	0659.0	0659.5	425.0D	142.0			
	9375	YUNN	4 S/F	0201.0	0204	14.0				RIF 20
[	200	VORO	4 S/F	0239.0	0242	6.0	65.0			
[	245	LEAR	4 S/F	0240.3	0241.1	2.8	51			
	3750	TYKW	5 S	0404.0	0404.8	3.0	1.5	.5		
	2000	TYKW	20 GRF	0420.0	0500	70.0	1.5	.5		
	3750	TYKW	20 GRF	0440.0	0505	50.0	2.0	1.0		
[	8800	LEAR	47 GB	0500.0	0602.8	77.3	22			
[	2695	LEAR	47 GB	0500.0	0602.8	81.1	20			
[	4995	LEAR	47 GB	0500.0	0602.8	81.1	17			
[	2000	TYKW	20 GRF	0530.0	0615	185.0	11.0	5.0		
[	1000	TYKW	21 GRF	0530.0	0615	185.0	4.0	2.0		
[	2950	GORK	21 GRF	0533.0	0610.5	390.0E	15.0			
[	9400	TYKW	20 GRF	0535.0	0617	180.0	12.0	5.0		
[	3750	TYKW	20 GRF	0535.0	0617	180.0	13.0	6.0		
[	9100	GORK	21 GRF	0536.0	0843.5	380.0E	50.0			
	1000	TYKW	5 S	0553.0	0553.9	3.0	2.5	1.0		
	245	LEAR	8 S	0632.1	0632.1	.4	80			
	127	TORN	42 SER	0653.2	0658.5	6.0	240.0			
[	245	LEAR	47 GB	0659.1	0659.3	.5	880			
	204	IZMI	5 S	0659.3	0659.5	.8	550.0	450.0		
	9375	YUNN	4 S/F	0721.0	0723	4.0				RIF 10
	245	LEAR	8 S	0759.5	0759.6	.3	13			
	430	KRAK	1 S	0810.8	0811.3	.8	8.0	5.0		
	930	BORD	41 F	0816.8	0817	.3	14.0	2.0		
	127	TORN	45 C	0818.9	0819.9	3.0	150.0	50.0		
	930	BORD	8 S	0822.5	0822.5	.2	17.0	2.0		
	536	ONDR	41 F	0830.0	0841.0	17.0	6.0	2.6		
[	430	KRAK	42 SER	0833.3	0833.5	2.5	45.0			
[	245	LEAR	8 S	0834.0	0834.1	.3	53			
[	6100	KISV		0835.0	0838.8		128.0			
[	6100	KISV	45 C	0835.0	0840	8.0	168.0			
[	8400	BERN	47 GB	0835.1	0839.8	60.0U	909.0			
[	8800	ATHN	47 GB	0835.3	0839.1	45.5	1100			
[	4995	ATHN	4 S/F	0835.3	0839.8	42.7D	370			
[	5200	BERN	46 C	0835.5	0840.0	210.0	406.0			
[	3200	BERN	46 C	0835.5	0838.8	210.0	290.0			
[	2695	ATHN	4 S/F	0835.6	0839.6	27.0D	410			
[	2840	PEKG	47 GB	0836.0	0839	44.0D	587.0			
[	19600	BERN	47 GB	0836.0	0838.7	60.0U	1027.0			
[	11800	BERN	47 GB	0837.0	0839.7	60.0U	1125.0			
[	9100	GORK		0837.0	0840.3		700.0			
[	3100	CRIM		0837.0	0839.4		333.0			
[	9395	PEKG	47 GB	0837.0	0840	7.0	591.0	80.0		
[	3100	CRIM	3 S	0837.0	0838.5	6.0	322.0	107.0		
[	9100	GORK	45 C	0837.0	0839.8	5.6	820.0			
[	10715	DWIN	45 C	0837.0	0839	10.0	1100.0	600.0		
[	808	ONDR	45 C	0837.0	0840.6	10.0	65.0	30.0		
[	3750	TYKW	45 C	0837.0	0838.9	6.0	410.0	110.0		
[	9375	YUNN	47 GB	0837.0	0840	24.0				RIF 292
[	3659	YUNN	47 GB	0837.0	0840	5.0				RIF 321
[	9400	TYKW	47 GB	0837.0	0839.8	6.0	840.0	290.0		
[	2650	DWIN	45 C	0837.0	0839	10.0	440.0	250.0		
[	810	KRAK	4 S/F	0837.2	0837.4	7.5	77.0	25.0		
[	810	KRAK		0837.2	0840.7		51.0			
[	950	GORK		0837.2	0840.8		107.0			
[	950	GORK	46 C	0837.2	0839.5	6.0	75.0			
[	930	BORD	46 C	0837.3	0840.6	9.0	97.0	28.0		
[	1415	ATHN	4 S/F	0837.3	0840.1	2.7D	390			
[	2000	TYKW	45 C	0837.5	0840.3	7.5	300.0	100.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
04	8800	LEAR	47	GB	0837.6	0839.0	10.0	1000			
	2950	GORK			0837.6	0840.2		230.0			
	2950	GORK	45	C	0837.6	0839.6	5.2	300.0			
	4995	LEAR	4	S/F	0837.6	0840.0	12.7	390			
	35000	BERN	47	GB	0837.7	0839.8	60.0U	630.0			
	15400	LEAR	47	GB	0837.8	0839.8	12.7	860			
	2695	LEAR	4	S/F	0837.8	0839.6	8.7	400			
	3000	IZMI	4	S/F	0838.0	0838.9	4.8	312.0	254.0		
	1415	LEAR	4	S/F	0838.0	0840.1	21.0	290			
	5730	IRKU			0838.5	0840.9		295.0D			L
	5730	IRKU	45	C	0838.5	0840.2	6.0	202.0			L
	650	GORK	20	GRF	0838.5	0840.8	8.5	13.0	4.0		
	606	LEAR	4	S/F	0840.1	0840.5	2.7	16			
	3100	CRIM	29	PBI	0843.0	0843.0	45.0	25.0	8.0		
	3750	TYKW	29	PBI	0843.0		24.0D	17.0	10.0D		
	9400	TYKW	29	PBI	0843.0		21.0D	40.0	27.0D		
	950	GORK	29	PBI	0843.2	0843.3	15.5	14.0			
	9395	PEKG	29	PBI	0844.0		36.0D	26.4			
	2000	TYKW	29	PBI	0845.0		20.0D	15.0	9.0D		
	930	BORD	41	F	0911.1	0911.4	.5	26.0	2.0		
	127	TORN	4	S/F	1021.1	1021.4	.8	280.0	140.0		
	127	TORN	8	S	1035.4	1035.9	1.2	2250.0	110.0		
	930	BORD	8	S	1106.0	1106	.1	14.0	1.0		
	204	IZMI	5	S	1140.0	1140.5	.8	150.0	100.0		
	2800	OTTA	21	GRF	1210.0	1330	230.0	7.8	4.8		
	127	TORN	4	S/F	1233.1	1233.9	1.2	280.0	140.0		
	930	BORD	41	F	1415.0	1415.6	.8	17.0	2.0		
	2800	OTTA	20	GRF	1445.0	1450	25.0	3.0	1.5		
	2800	OTTA	1	S	1800.0	1804	10.0	3.2	1.6		
	245	PALE	8	S	1935.3	1935.6	.7	45			
	245	PALE	8	S	2039.5	2039.8	.6	11			
	245	PALE	4	S/F	2041.6	2043.3	3.7	11			
	2800	OTTA	20	GRF	2100.0	2110	40.0	3.4	1.7		
	3750	TYKW	21	GRF	2210.0	2350	350.0	10.0	5.0		
	1000	TYKW	45	C	2324.5	2324.8	1.5	3.0	1.0		
	1000	TYKW	45	C	2336.0	2337.6	2.5	3.0	1.0		
	1000	TYKW	21	GRF	2350.0	0210	260.0	3.0	1.5		
05	260	ONDR	44	MS	0550.0E		442.0D	168.0			
	127	TORN	43	MS	0840.0	1028.3	490.0	30.0	14.0		V1
	2000	TYKW	21	GRF	0055.0	0217	185.0	4.0	2.0		
	9400	TYKW	21	GRF	0110.0	0120	140.0	4.0	2.0		
	3750	TYKW	21	GRF	0110.0	0112	180.0	6.0	3.0		
	2000	TYKW	5	S	0110.5	0112	14.0	3.0	1.0		
	9400	TYKW	5	S	0127.0	0128.3	3.0	6.0	2.0		
	2000	TYKW	45	C	0127.0	0128.3	12.0	3.0	1.0		
	3750	TYKW	5	S	0127.0	0128.6	20.0	5.0	1.5		
	245	LEAR	8	S	0142.1	0142.1	.7	42			
	3750	TYKW	45	C	0153.0	0201.0	12.0	3.0	1.0		
	9395	PEKG	3	S	0200.0	0200.9	3.0	14.0	4.0		
	8800	LEAR	8	S	0200.1	0200.8	2.0	23			
	15400	LEAR	8	S	0200.1	0200.8	1.7	15			
	4995	LEAR	8	S	0200.1	0200.8	1.7	15			
	9400	TYKW	5	S	0200.5	0200.8	1.5	12.0	4.0		
	3750	TYKW	20	GRF	0241.0	0247	40.0	2.0	1.0		
	1415	LEAR	4	S/F	0258.8	0300.6	3.0	17			
	2000	TYKW	5	S	0259.0	0300.7	4.0	2.0	.7		
	1000	TYKW	5	S	0259.0	0300 U	1.0D	1.5D	.5D		
	3750	TYKW	20	GRF	0330.0	0358	3.0	2.0	1.0		
	245	LEAR	4	S/F	0333.8	0335.0	2.3	33			
	2000	TYKW	31	ABS	0400.0	0415	50.0	1.5	.7		
	3750	TYKW	31	ABS	0400.0	0415	5.0	2.0	1.0		
	8800	ATHN	4	S/F	0438.3	0439.6	2.8	23			
	8800	ATHN	4	S/F	0452.3	0457.5	7.3	100			
	4995	ATHN	4	S/F	0454.6	0457.3	5.0D	11			
	2000	TYKW	20	GRF	0510.0	0525	40.0	1.5	.7		
	3750	TYKW	20	GRF	0510.0	0525	40.0	3.0	1.5		
	9400	TYKW	20	GRF	0510.0	0525	35.0	3.0	1.5		
	8800	ATHN	8	S	0551.6	0551.8	.4	31			
	410	LEAR	8	S	0613.0	0613.1	.1	05			
	245	LEAR	8	S	0613.0	0613.1	.1	10			
	3750	TYKW	21	GRF	0615.0	0700	105.0	3.0	1.5		
	245	LEAR	8	S	0623.1	0623.8	.9	71			
	2000	TYKW	20	GRF	0640.0	0652	50.0	2.0	1.0		
	2950	GORK	20	GRF	0705.5	0709.0	48.0	4.0	2.0		
	3750	TYKW	45	C	0706.0	0707.8	30.0	6.0	2.0		
	536	ONDR	8	S	0711.7	0711.7	.3	31.0			
	930	BORD	41	F	0743.3	0743.8	.7	33.0	2.0		
	9100	GORK	20	GRF	0925.7	0933.3	154.0E	16.0			
	3100	CRIM	20	GRF	0931.0	0934.0	7.0	5.0	2.0		
	2950	GORK	20	GRF	0932.1	1051.0	148.0E	8.0	4.0		
	930	BORD	8	S	0942.4	0942.5	.2	18.0	1.0		
	204	IZMI	41	F	0949.0	0955.3	6.8	80.0			
	930	BORD	41	F	0958.5	0958.7	.4	21.0	2.0		
	204	IZMI	5	S	1004.0	1004.5	.8	200.0	120.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUN UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
05	33	UPIC	42 SER	1031.0	1059	51.9				
	29	UPIC	42 SER	1031.9	1032.1	51.9				
	3100	CRIM	20 GRF	1036.0	1051.0	50.0	7.0	2.0		
	930	BORD	41 F	1127.5	1127.7	.2	32.0	2.0		
	127	TORN	4 S/F	1202.5	1203.9	2.5	80.0	40.0		
	1415	ATHN	8 S	1217.1	1217.6	1.9D	76			
	2695	ATHN	8 S	1217.5	1217.6	.8	11			
	3100	CRIM	1 S	1226.0	1227.0	2.0	14.0	5.0		
	2800	OTTA	3 S	1226.0	1227.1	10.0	13.6	3.4		
	4995	SGMR	4 S/F	1226.3	1227.3	3.7D	09			
	930	BORD	41 F	1226.5	1228.6	3.0	12.0	3.0		
	1415	SGMR	4 S/F	1226.6	1227.1	2.2	81			
	2695	SGMR	4 S/F	1227.1	1228.1	2.2D	16			
	2800	OTTA	2 S/F	1357.0	1359	8.0	4.0	2.0		
	2800	OTTA	21 GRF	1406.0	1444	145.0	20.0	10.4		
	4995	SGMR	47 GB	1406.8	1408.8	5.7D	720			
	2800	OTTA	47 GB	1407.0	1409.1	8.0	1195.0	226.0		
	5200	BERN	47 GB	1407.0	1408.8	140.0	846.0			
	3200	BERN	47 GB	1407.0	1409.1	140.0	827.0			
	8800	SGMR	47 GB	1407.0	1409.0	4.6D	970			
	8400	BERN	47 GB	1407.0	1408.8	140.0	1078.0			
	2695	SGMR	47 GB	1407.0	1409.3	8.6D	730			
	2650	DWIN	45 C	1407.0		9.0	450.0D			
	1415	SGMR	47 GB	1407.1	1409.1	8.9D	1100			
	11800	BERN	47 GB	1407.1	1408.7	114.0	839.0			
	19600	BERN	46 C	1407.3	1408.1	21.0	422.0			
	15400	SGMR	4 S/F	1407.5	1408.1	3.5D	430			
	930	BORD	46 C	1407.6	1407.6	8.4	149.0	28.0		
	35000	BERN	46 C	1407.8	1408.6	1.5	80.0			
	606	SGMR	4 S/F	1408.6	1409.1	3.5	25			
	4995	ATHN	47 GB	1411.6	1413.6	16.2D	800			
	8800	ATHN	47 GB	1411.6	1413.1	18.0	1100			
	2695	ATHN	47 GB	1411.8	1414.1	8.8D	1300			
	1415	ATHN	4 S/F	1412.0	1414.3	8.6D	390			
	2800	OTTA	29 PBI	1415.0	1415	15.0	14.4	7.2		
	930	BORD	41 F	1755.0	1755.2	.6	129.0	2.0		
	2800	OTTA	260 FAL	1810.0	1830	20.0	-2.2	-1.1		
	2800	OTTA	20 GRF	1835.0	1846	35.0	5.0	2.5		
	2695	PENT	1 S	2013.2	2014	6.0	3.0	1.5		
	2000	TYKW	5 S	2149.0	2151.0	3.0	11.0	3.0		
	3750	TYKW	5 S	2149.0	2150.7	5.0	54.0	15.0		
	2695	PENT	4 S/F	2149.8	2150.7	1.7	49.0	18.0		
	4995	PALE	8 S	2150.1	2150.5	.7	19			
	2695	PALE	8 S	2150.1	2150.8	1.0	31			
	2695	PENT	29 PBI	2151.5	2151.5	20.0	9.0	4.0		
	2000	TYKW	29 PBI	2152.0		20.0	3.0	1.5		
	3750	TYKW	29 PBI	2154.0		15.0	5.0	2.0		
	2695	PENT	21 GRF	2240.0	2400	190.0D	30.6			
	2000	TYKW	28 PRE	2251.0	2302.2	11.5	120.0	35.0		
	3750	TYKW	45 C	2251.0	2258.1	44.0	110.0	40.0		
	1000	TYKW	28 PRE	2251.0	2257.8	10.5	370.0	50.0		
	500	HIRA	22 GRF	2254.0	2303.6	58.0	15.0	8.0		MR
	9400	TYKW	45 C	2255.0U	2305.9	35.0U	73.0U	45.0U		RAIN
	2695	PENT	46F C	2255.0	2304	20.0	88.0	48.6		
	2695	PALE	47 GB	2255.5	2303.8	23.1	98			
	2695	MANI	47 GB	2255.8	2304.0	13.7D	86			
	4995	PALE	47 GB	2255.8	2258.0	22.8	119			
	4995	MANI	47 GB	2255.8	2258.3	14.7D	139			
	1415	MANI	47 GB	2256.0	2304.3	18.0D	2900			
	8800	MANI	47 GB	2256.0	2304.0	14.0	110			
	8800	PALE	47 GB	2256.1	2305.8	22.5	110			
	1415	PALE	47 GB	2256.1	2303.8	22.5	3000			
	200	HIRA	46 C	2256.3	2306.5	56.6	65.0	12.0		WR
	200	HIRA		2256.3	2329.0		12.0			O
	15400	PALE	47 GB	2256.5	2306.6	22.1	78			
	606	PALE	8 S	2256.5	2256.8	.6	44			
	100	HIRA	46 C	2258.0	2308.7	19.2	590.0	110.0		
	245	PALE	47 GB	2300.8	2306.8	10.0	69			
	410	PALE	8 S	2301.1	2301.3	.2	16			
	1000	TYKW	47 GB	2301.5	2303.7	15.5	760.0	150.0		
	2000	TYKW	47 GB	2302.5	2305.5	7.5	910.0	200.0		
	2000	TYKW	30 PBI	2310.0		470.0	40.0	13.0		
	2695	PENT	29 PBI	2315.0	2315	35.0	23.0	9.8		
	1000	TYKW	30 PBI	2317.0		270.0	16.0	6.0		
	606	LEAR	8 S	2320.8	2321.0	.3	20			
	1000	TYKW	45 C	2321.0	2325.6	14.0	22.0	3.5		
	9400	TYKW	29 PBI	2330.0		18.0	27.0U	10.0		
	3750	TYKW	30 PBI	2335.0		500.0	26.0	10.0		
	1000	TYKW	5 S	2339.7	2340.0	.7	6.0	1.5		
	3750	TYKW	20 GRF	2353.0	2356.5	45.0	7.0	2.0		
06	260	ONDR	44 NS	0602.0E		435.0D	152.0			
	245	LEAR	43 NS	2302.0	0704.0	636.0D	58			
	2000	TYKW	8 S	0030.6	0030.7	.2	9.0	3.0		
	245	LEAR	8 S	0049.6	0049.8	.7	55			

SOLAR RADIO EMISSION
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DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
06	245	PALE	0	S	0049.6	0049.8	.5	69			
	3750	TYKW	5	S	0055.0	0056.2	6.0	6.0	1.5		
	2000	TYKW	5	S	0055.5	0056.2	7.0	3.0	1.5		
	245	LEAR	8	S	0103.3	0103.6	.5	02			
	245	LEAR	8	S	0130.1	0131.1	1.5	50			
	3750	TYKW	21	GRF	0308.0	0313	65.0	4.0	2.0		
	3750	TYKW	21	GRF	0436.0	0501	105.0	5.0	3.0		
	245	LEAR	8	S	0448.8	0448.8	.2	11			
	410	LEAR	8	S	0448.8	0448.8	.2	10			
	245	LEAR	8	S	0646.8	0647.0	.3	28			
	245	LEAR	8	S	0739.8	0740.1	.8	26			
	3100	CRIM	26	FAL	0745.0	0812.0		6.0			
	9400	TYKW	5	S	0818.0	0819.0	3.0	10.0	3.0		
	3750	TYKW	5	S	0818.7	0819.0	.6	3.0	1.0		
	2950	GORK	20	GRF	0818.9	0834.5	23.7	9.0			
	245	LEAR	8	S	0819.0	0819.1	.5	20			
	2000	TYKW	5	S	0831.0	0834.6	12.0	5.0	1.5		
	3750	TYKW	5	S	0831.0	0834.6	12.0	7.0	1.5		
	3100	CRIM	20	GRF	0831.5	0834.2	9.0	7.0	2.0		
	245	LEAR	8	S	0853.1	0853.3	.4	45			
	2650	DWIN	45	C	1035.0	1035	2.0	50.0	30.0		
	930	BORD	8	S	1048.9	1048.9	.1	15.0	1.0		
	29	UPIC	42	SER	1137.6	1142.8	19.6				
	33	UPIC	42	SER	1138.0	1143	20.3				
	127	TORN	42	SER	1142.4	1148.4	7.0	2400.0	40.0U		
	430	KRAK	8	S	1148.0	1148.0	.2	50.0			
	204	IZMI	7	C	1148.0	1148.5	.8	1000.0	650.0		
	204	IZMI	7	C	1157.2	1157.2	.8	480.0	350.0		
	127	TORN	7	C	1157.2	1157.8	.8	150.0	70.0		
	430	KRAK	42	SER	1254.0	1255.0	5.0	34.0			
	10715	DWIN	45	C	1407.0	1409	8.0	730.0	400.0		
	930	BORD	41	F	1417.4	1417.7	.6	37.0	2.0		
	2800	OTTA	20	GRF	1845.0	1847	35.0	4.2	2.1		
	2930	VORO	45	C	2255.0	2303	20.0	123.0			
	208	VORO	46	C	2300.0	2301	5.0	82.0			
	208	VORO			2300.0	2301.5		65.0			
	3750	TYKW	5	S	2313.0	2317	15.0	1.5	.5		
07	260	ONDR	44	NS	0730.0E		371.0D	135.0			
	2000	TYKW	20	GRF	0010.0	0035	60.0	2.0	1.0		
	3750	TYKW	20	GRF	0010.0	0048	100.0	4.0	1.5		
	3750	TYKW	21	GRF	0155.0	0210	35.0	3.0	1.5		
	9400	TYKW	5	S	0201.0	0202.3	8.0	10.0	2.0		
	2000	TYKW	5	S	0201.5	0202.3	8.0	2.0	.5		
	3750	TYKW	5	S	0201.5	0202.3	4.0	6.0	2.0		
	4995	LEAR	8	S	0201.6	0202.3	1.5	18			
	245	PALE	8	S	0201.8	0202.1	1.0	220			
	245	LEAR	8	S	0201.8	0202.3	1.0	210			
	4995	PALE	8	S	0202.0	0202.3	.1	15			
	1000	TYKW	5	S	0202.0	0202.5	4.0	1.0	.5		
	8800	LEAR	8	S	0202.1	0202.3	.2	16			
	3750	TYKW	20	GRF	0310.0	0320	30.0	3.0	1.5		
	2000	TYKW	20	GRF	0310.0	0320	35.0	2.0	1.0		
	8800	ATHN	8	S	0502.3	0503.0	1.2	98			
	245	LEAR	8	S	0506.3	0506.5	.5	38			
	410	LEAR	8	S	0506.3	0506.5	1.5	150			
	606	LEAR	4	S/F	0506.5	0510.5	9.0	13			
	245	LEAR	4	S/F	0508.5	0514.5	6.6	56			
	410	LEAR	4	S/F	0508.6	0514.1	7.0	180			
	2000	TYKW	45	C	0512.0	0514.4	4.0	4.0	1.0		
	1000	TYKW	45	C	0512.0	0514.5	4.0	9.0	2.5		
	3750	TYKW	5	S	0514.0	0514.3	1.5	2.0	.7		
	6100	KISV	45	S/F	0540.0	0540.5	10.0	8.0			
	6100	KISV	1	S	0625.2	0625.8	1.3	4.0			
	9100	GORK	1	S	0625.2	0625.6	1.0	4.0	2.0		
	2000	TYKW	5	S	0625.4	0625.7	.6	1.0	.3		
	3750	TYKW	5	S	0625.4	0625.7	.6	2.5	1.0		
	204	IZMI	5	S	0655.5	0655.8	.5	70.0	50.0		
	204	IZMI	7	C	0704.0	0704.0	1.0	290.0	120.0		
	245	LEAR	4	S/F	0708.1	0709.8	2.7	08			
	410	LEAR	4	S/F	0709.8	0710.1	2.8	18			
	430	KRAK	42	SER	0710.0	0712.3	2.5	36.0			
	930	BORD	41	F	0711.8	0712.4	.8	150.0	2.0		
	606	LEAR	8	S	0711.8	0712.0	1.0	82			
	2000	TYKW	45	C	0711.9	0712.1	1.0	7.0	2.0		
	1000	TYKW	45	C	0711.9	0712.5	1.0	55.0	7.0		
	3750	TYKW	45	C	0711.9U	0712.0	1.0	4.0U	1.5U		INTERFERENCES
	1415	LEAR	8	S	0712.1	0712.3	.7	84			
	430	KRAK	8	S	0728.0	0728.0	.4	34.0			
	204	IZMI	4	S/F	0743.0	0743.5	10.0	120.0	70.0		
	430	KRAK	8	S	0749.2	0749.2	.4	110.0			
	127	TORN	5	S	0809.7	0810.4	1.5	90.0	40.0		
	410	LEAR	8	S	0826.0	0826.1	.5	160			
	430	KRAK	8	S	0826.3	0826.4	.3	44.0			
	245	LEAR	4	S/F	0834.0	0834.5	308.6	31			

SOLAR RADIO EMISSION
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DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
07	3100	CRIM	24	R	0900.0	0920.5		12.0	4.0		
	430	KRAK	8	S	0920.0	0920.5	.8	57.0			
	930	BORD	8	S	0943.0	0943.6	.3	16.0	2.0		
	9100	GORK	1	S	1008.5	1008.5	1.8	12.0	6.0		
	430	KRAK	42	SER	1033.8	1033.8	4.0	32.0			
	430	KRAK			1033.8	1037.0		56.0			
	430	KRAK			1033.8	1034.7		99.0			
	204	IZMI	8	S	1035.0	1035.0	.4	120.0	70.0		
	29	UPIC	2	S/F	1056.4	1056.9	.6				
	33	UPIC	3	S	1056.6	1056.6	.3				
	2800	OTTA	1	S	1135.0	1137	7.0	2.8	1.4		
	33	UPIC	45	C	1146.3	1149.6	5.6				
	29	UPIC	45	C	1146.8	1149.5	4.0				
	2800	OTTA	22	GRF	1205.0	1207.5	40.0	5.6	2.8		
	430	KRAK	2	S/F	1249.4	1250.0	2.5	28.0	6.0		
	930	BORD	41	F	1446.0	1446.2	1.0	61.0	2.0		
	2800	OTTA	22	GRF	1500.0	1511	60.0	14.0	6.0		
	606	SGMR	8	S	1500.3	1500.8	.8D	11			
	245	SGMR	8	S	1500.3	1500.8	.8D	18			
	410	SGMR	8	S	1500.6	1500.8	.4D	09			
	1415	SGMR	8	S	1500.6	1500.8	.4	10			
	410	SGMR	4	S/F	1546.0	1547.1	13.3D	24			
	606	SGMR	4	S/F	1546.6	1547.0	2.7	16			
	245	SGMR	8	S	1547.0	1547.1	1.1D	35			
	2695	PENT	1	S	1707.0	1707.4	1.0	3.2	1.6		
	410	PALE	4	S/F	1740.5	1743.1	4.0	300			
	930	BORD	46	C	1740.6	1743.2	8.0	58.0	7.0		
	245	PALE	47	GB	1740.8	1743.1	2.5	1300			
	228	HARS	45	C	1741.5	1742.5	4.0	65.0	20.0		
	1415	PALE	8	S	1742.8	1743.0	1.0	32			
	606	PALE	8	S	1742.8	1743.1	.5	74			
	2800	OTTA	1A	S	1743.0	1743.5	2.0	2.2	1.1		
	2800	OTTA	8	S	1743.6	1743.6	.1	13.6			
	2800	OTTA	8	S	1747.0	1747.1	.3	3.2			
	245	PALE	8	S	1747.0	1747.1	1.1	60			
	2800	OTTA	32A	ABS	1752.0	1820	66.0	-4.6	-2.3		
	606	PALE	8	S	1840.8	1841.0	.3	240			
	245	PALE	47	GB	1840.8	1840.8	.3	2700			
	410	PALE	47	GB	1840.8	1840.8	.3	1500			
	2800	OTTA	1	S	1841.0	1841.1	1.0	4.6	2.3		
	15400	PALE	8	S	1841.6	1841.6	.2	26			
	4995	PALE	8	S	1854.0	1854.6	1.3	13			
	245	PALE	47	GB	1907.8	1908.0	.3	2100			
	606	PALE	8	S	1907.8	1908.0	.3	54			
	410	PALE	47	GB	1907.8	1908.0	.3	500			
	2800	OTTA	22	GRF	1955.0	2000	20.0	2.8	1.4		
	245	PALE	47	GB	1958.0	1958.3	2.3	730			
	410	PALE	47	GB	1958.1	1958.3	2.2	1100			
	606	PALE	8	S	1958.3	1958.6	.5	19			
	410	PALE	8	S	2001.8	2001.8	.3	110			
	2800	OTTA	260	FAL	2025.0	2050	25.0	-3.8	-1.9		
	1415	PALE	8	S	2101.0	2101.1	.3	48			
	3750	TYKW	20	GRF	2310.0	2320	40.0	2.0	1.0		
	245	LEAR	8	S	2323.8	2323.8	.7	20			
08	245	LEAR	43	NS	0406.0	0849.5	332.0D	62			
	260	ONDR	44	NS	0546.0E		506.0D	84.0	3.0		
	204	IZMI	43	NS	0830.0		210.0D	22.0			
	245	SGMR	43	NS	0934.0	1141.1	506.0D	100			
	9400	TYKW	45	C	0007.5	0007.9	6.0	7.0	2.0		
	3750	TYKW	5	S	0007.5	0008	3.5	1.5	.5		
	8800	LEAR	8	S	0007.6	0008.0	1.4	19			
	4995	LEAR	8	S	0007.8	0008.0	1.2	11			
	3750	TYKW	20	GRF	0020.0	0058	80.0	5.0	2.0		
	410	LEAR	8	S	0042.8	0043.5	1.0	27			
	245	LEAR	8	S	0043.1	0043.5	.7	09			
	4995	LEAR	8	S	0217.8	0218.3	1.8	04			
	9400	TYKW	45	C	0218.0	0218.6	2.0	10.0	3.5		
	3750	TYKW	5	S	0218.0	0218.3	3.0	1.5	.5		
	8800	LEAR	8	S	0218.1	0218.3	.2	16			
	3750	TYKW	5	S	0251.0	0252	7.0	1.5	.5		
	9400	TYKW	5	S	0303.0	0303.6	1.0D	11.0	5.0D		
	9395	PEKG	3	S	0303.0	0303.6	2.0	14.0	3.2		
	15400	LEAR	4	S/F	0303.1	0303.6	2.7	10			
	8800	LEAR	8	S	0303.3	0303.6	.3	19			
	245	LEAR	8	S	0333.6	0333.8	.5	11			
	410	LEAR	4	S/F	0333.6	0333.6	2.2	41			
	3750	TYKW	5	S	0333.7	0334.0	.7	1.5	.5		
	3750	TYKW	5	S	0335.0	0335.4	3.0	1.0	.4		
	9400	TYKW	5	S	0335.0	0335.4	2.0	9.0	3.0		
	9400	TYKW	5	S	0350.4	0350.8	1.5	7.0	2.5		
	2800	TYKW	21	GRF	0405.0	0530	180.0	4.0	2.0		
	3750	TYKW	21	GRF	0431.0	0530	150.0	6.0	3.0U		INTERFERENCES
	9400	TYKW	21	GRF	0500.0	0530	120.0	4.0	2.0		
	9395	PEKG	8	S	0532.0	0542.8	33.0	76.0	25.0		

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
08	2840	PEKG	3 S	0532.0	0543	13.0	14.0	5.1		
	2000	TYKW	5 S	0542.0	0542.8	7.0	14.0	5.0		
	9400	TYKW	45 C	0542.0	0542.7	4.0	85.0	9.0		
	8400	BERN	4 S/F	0542.0	0542.7	3.0	101.0			
	11800	BERN	4 S/F	0542.0	0542.7	2.0	89.0			
	245	LEAR	47 GB	0542.0	0542.8	2.5	700			
	5200	BERN	4 S/F	0542.1	0542.7	7.0	34.0			
	3200	BERN	4 S/F	0542.1	0542.7	7.0	14.0			
	9100	GORK	3 S	0542.2	0542.8	3.0	80.0			
	3100	CRIM	1 S	0542.3	0542.6	1.0	14.0	5.0		
	2950	GORK	1 S	0542.3	0542.7	4.0	10.0	5.0		
	17000	NOBE	1 S	0542.3	0542.8	.6	39.0			R
	650	GORK	20 GRF	0542.4	0543.0	10.7	7.5	3.6		
	950	GORK	3 S	0542.5	0542.8	4.0	21.0	10.0		
	100	HIRA	48 C	0542.5	0542.9	2.2	64000.0	8900.0		WR
	1000	TYKW	5 S	0542.5	0542.8	6.0	15.0	4.0		
	3750	TYKW	45 C	0542.5	0542.7	4.0	17.0	3.5		
	200	HIRA	46 C	0542.5	0543.0	1.6	2740.0	315.0		0
	19600	BERN	4 S/F	0542.5	0542.7	1.5	55.0			
	33	UPIC	4 S/F	0543.0	0543.1	1.2				
	29	UPIC	2 S/F	0543.0	0543.3	1.1				
	245	LEAR	8 S	0557.1	0557.3	.5	170			
	9400	TYKW	5 S	0633.3	0633.3	.6	7.0	2.0		
	810	KRAK	8 S	0725.5	0725.5	.1	16.0			
	430	KRAK	2 S/F	0730.2	0730.5	1.0	25.0	5.0		
	9400	TYKW	5 S	0733.3	0733.5	.7	4.0	1.5		
	204	IZMI	41 F	0738.0	0738.8	7.0	40.0			
	204	IZMI	7 C	0817.0	0817.0	.5	330.0	200.0		
	204	IZMI	41 F	0820.1	0824.2	4.3	35.0			
	536	ONDR	8 S	0827.0	0827	.2	110.0			
	430	KRAK	42 SER	0851.8	0852.4	24.0	21.0			
	430	KRAK		0851.8	0903.2		560.0D			
	430	KRAK		0851.8	0915.7		60.0			
	810	KRAK	8 S	0916.2	0916.3	.2	54.0			
	536	ONDR	8 S	0916.3	0916.3	.2	358.0			
	29	UPIC	4 S/F	1017.1	1018.2	1.8				
	33	UPIC	45 C	1018.1	1019	1.7				
	536	ONDR	45 C	1051.8	1055.3	12.0	43.0	7.0		
	810	KRAK	42 SER	1052.5	1054.8	4.3	37.0			
	430	KRAK	41 F	1053.3	1054.5	2.5	18.0	4.0		
	930	BORD	8 S	1054.5	1054.8	.6	27.0	2.0		
	808	ONDR	8 S	1055.0	1055	.2	32.0			
	127	TORN	5 S	1058.9	1059.4	1.0	90.0	40.0		
	29	UPIC	3 S	1240.5	1240.7	.5				
	33	UPIC	4 S/F	1240.6	1240.8	.4				
	3200	BERN	2 S/F	1330.0	1333.5	7.0	6.0			
	5200	BERN	2 S/F	1330.0	1333.6	6.0	9.0			
	11800	BERN	2 S/F	1332.5	1333.8	20.0	17.0			
	8400	BERN	2 S/F	1332.5	1333.7	6.0	16.0			
	8800	ATHN	4 S/F	1333.1	1333.8	2.2	11			
	4995	ATHN	8 S	1333.1	1333.6	1.9D	05			
	2800	OTTA	2 S/F	1333.3	1333.7	1.5	2.8	1.3		
	7000	SAOP	3 S	1333.4	1334.0	6.2	12.0	60.0		27R
	8800	ATHN	4 S/F	1359.8	1403.6	7.0	13			
	4995	ATHN	4 S/F	1359.8	1403.5	8.5D	15			
	3200	BERN	1 S	1401.5	1403.6	5.0	8.0			
	8400	BERN	4 S/F	1401.7	1405.5	9.0	20.0			
	5200	BERN	4 S/F	1401.7	1403.6	6.0	16.0			
	7000	SAOP	45 C	1402.6	1403.8	7.0	18.5	9.0		18R
	2695	ATHN	4 S/F	1402.8	1403.6	2.3D	05			
	8400	BERN	4 S/F	1459.5	1501.3	5.0	39.0			
	5200	BERN	3 S	1459.5	1501.3	6.0	54.0			
	4995	ATHN	4 S/F	1459.8	1501.1	8.3D	48			
	11800	BERN	4 S/F	1500.0	1501.2	3.0	26.0			
	3200	BERN	3 S	1500.0	1501.3	5.0	44.0			
	10715	DWIN	1 S	1500.0	1501	2.0	25.0	15.0		
	2650	DWIN	1 S	1500.0	1501	4.0	45.0	20.0		
	930	BORD	46 C	1500.0	1500.4	9.2	35.0	6.0		
	606	SGMR	47 GB	1500.1	1500.8	14.5D	730			
	1415	SGMR	4 S/F	1500.3	1501.5	4.5D	59			
	410	SGMR	47 GB	1500.3	1501.3	15.7D	39			
	245	SGMR	47 GB	1500.3	1500.8	1.7D	2100			
	4995	SGMR	4 S/F	1500.5	1501.1	2.3D	51			
	8800	ATHN	4 S/F	1500.5	1501.1	6.6	32			
	2695	ATHN	4 S/F	1500.6	1501.3	4.2D	44			
	2695	SGMR	4 S/F	1500.6	1501.1	3.2D	57			
	2800	OTTA	3 S	1500.6	1501.3	5.0	47.6	8.0		
	1415	ATHN	4 S/F	1500.6	1501.3	3.4D	43			
	15400	SGMR	8 S	1500.8	1501.1	1.0	01			
	8800	SGMR	8 S	1500.8	1501.3	1 8D	40			
	7000	SAOP	3 S	1501.1	1501.5	1.6	37.0	18.0		8R
	5200	BERN	45 C	1612.8	1618.3	8.0	48.0			
	3200	BERN	45 C	1612.8	1618.5	25.0	46.0			
	8400	BERN	45 C	1613.0	1618.3	8.0	71.0			
	11800	BERN	3 S	1613.1	1618.3	8.0	30.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
08	4995	ATHN	4 S/F	1613.3	1614.1	3.3D	11			
	7000	SAOP	46 C	1613.4	1618.2	15.0	74.0	24.0		15R
	2800	OTTA	45 C	1613.5	1618.5	8.5	46.6	8.2		
	8800	ATHN	4 S/F	1613.8	1614.1	3.0	05			
	2695	SGMR	4 S/F	1616.5	1618.6	4.3D	47			
	8800	ATHN	4 S/F	1617.3	1618.3	3.8	49			
	4995	SGMR	4 S/F	1617.3	1618.3	4.2D	55			
	4995	ATHN	4 S/F	1617.6	1618.3	4.5D	38			
	8800	SGMR	4 S/F	1617.6	1618.5	3.7	63			
	2650	DWIN	1 S	1618.0	1618.5	2.0	45.0	20.0		
	10715	DWIN	1 S	1618.0	1618.5	2.0	50.0	30.0		
	2695	ATHN	4 S/F	1618.0	1618.3	2.3D	35			
	930	BORD	3 S	1618.0	1618.7	5.0	24.0	4.0		
	606	SGMR	8 S	1618.0	1618.1	.8D	170			
	1415	ATHN	4 S/F	1618.1	1618.6	5.5D	33			
	1415	SGMR	4 S/F	1618.8	1618.3	3.2D	36			
	2800	OTTA	20 GRF	1655.0	1715	55.0	4.8	2.4		
	7000	SAOP	3 S	1737.8	1739.2	4.8	25.0	12.5		0
	15400	PALE	4 S/F	1738.0	1739.1	4.1	25			
	11800	BERN	3 S	1738.1	1739.0	2.0	25.0			
	15400	SGMR	8 S	1738.1	1738.8	1.0	13			
	8800	SGMR	8 S	1738.1	1739.1	1.7D	38			
	8400	BERN	3 S	1738.4	1739.0	2.0	35.0			
	5200	BERN	3 S	1738.4	1739.1	2.5	15.0			
	8800	PALE	4 S/F	1738.5	1739.1	3.5	40			
	2800	OTTA	22 GRF	1800.0	1825	35.0	2.4			
	2800	OTTA	1 S	1853.5	1854.3	2.5	3.4	1.6		
	2800	OTTA	2 S/F	1929.0	1929.1	1.0	9.6	3.2		
	2800	OTTA	240 R	2055.0	2058	3.0	4.0			
	17000	NOBE	1 S	2147.5	2147.9	1.0	13.0			0
	2800	OTTA	28 PRE	2150.0	2206.5	17.0	12.8			
	2000	TYKW	28 PRE	2155.0	2218.8	28.5	140.0	30.0		
	3750	TYKW	28 PRE	2155.0	2219.4	28.5	147.0	30.0		
	1000	TYKW	47 GB	2200.0	2219.3	23.5	920.0	35.0		
	9400	TYKW	28 PRE	2200.0	2221.7	23.0	45.0	13.0		
	2800	OTTA	47 GB	2207.0	2235	83.0	1065.0	244.0		
	245	PALE	47 GB	2207.1	2228.3	57.9D	160			
	410	PALE	47 GB	2207.1	2234.5	57.9D	100			
	2695	PALE	47 GB	2207.1	2234.5	57.9D	910			
	1415	PALE	47 GB	2207.3	2226.8	57.7D	700			
	17000	NOBE	28 PRE	2210.5	2224.1	13.5	13.0			0
	606	MANI	47 GB	2211.0	2234.3	100.0D	570			
	1415	MANI	47 GB	2214.0	2230.6	104.0D	500			
	2695	MANI	47 GB	2214.0	2234.8	78.0D	820			
	4995	PALE	47 GB	2214.1	2234.3	160.9D	1399			
	4995	MANI	47 GB	2214.5	2234.8	63.5D	1100			
	8800	MANI	47 GB	2214.5	2234.8	65.5	1700			
	8800	PALE	47 GB	2215.1	2234.3	159.9D	1100			
	15400	PALE	4 S/F	2215.1	2234.3	159.9D	480			
	500	HIRA	48 C	2216.0	2300.0	74.0	240.0	100.0		SL
	606	PALE	47 GB	2218.5	2301.5	156.5D	350			
	208	VORO		2220.0	2319		64.0			
	208	VORO	46 C	2220.0	2248	7.0	68.0			
	9400	TYKW	47 GB	2223.0	2234.4	67.0	860.0	200.0		
	2000	TYKW	47 GB	2223.5	2234.4	66.5	645.0	220.0		
	1000	TYKW	47 GB	2223.5	2228.7	66.5	250.0	250.0		
	3750	TYKW	47 GB	2223.5	2234.6	66.5	1120.0	260.0		
	200	HIRA	24 R	2223.6	2245.0	670.0D	100.0	20.0		ML
	17000	NOBE	45 C	2224.1	2234.5	24.0	294.0			R
	35000	NAGO	20 GRF	2230.0	2236	66.0	74.0			
	100	HIRA	24 R	2241.2	2306.2	660.0D	900.0	100.0		WL
	17000	NOBE	29 PBI	2248.0	2248.1	177.0	64.0			0
	8800	LEAR	47 GB	2310.0E	2319.6	621.0D	130			
	2695	LEAR	47 GB	2310.0E	2316.3	621.0D	180			
	245	LEAR	47 GB	2310.0E	2319.5	38.6	119			
	1415	LEAR	47 GB	2310.0E	2310.6	621.0D	180			
	15400	LEAR	47 GB	2310.0E	2347.3	42.3	78			
	606	LEAR	4 S/F	2310.0E	2312.3	38.6	130			
	4995	LEAR	47 GB	2310.0E	2310.6	621.0D	110			
	410	LEAR	4 S/F	2310.0E	2310.6	17.8	170			
	2695	PENT	29 PBI	2330.0	2330	130.0D	67.4			
	2000	TYKW	30 PBI	2330.0		420.0	45.0	17.0		
	3750	TYKW	30 PBI	2330.0		420.0	70.0	25.0		
	1000	TYKW	30 PBI	2330.0		420.0	28.0	10.0		
	9400	TYKW	30 PBI	2330.0		360.0	77.0	25.0		
	1000	TYKW		2333.0	0020.8		35.0			
	2000	TYKW	45 C	2333.0	2348.6	20.0	7.0	3.0		
	1000	TYKW	45 C	2333.0	2345.0	100.0	38.0	10.0		
	500	HIRA	29 PBI	2333.4	2333.4	71.0	14.0	6.0		ML
09	245	LEAR	43 NS	0050.1	0145.6U	55.5D	13			
	33	UPIC	43 NS	0503.0	0613.1	504.6D				
	29	UPIC	43 NS	0503.1		504.4D				
	260	ONDR	44 NS	0550.0E		520.0D	13.0			
	127	TORN	43 NS	0600.0	1118.7	450.0D	50.0	3.0		V1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
09	200	HIRA	44	NS	1930.0E	2326	830.0D	10.0	5.0		WL
	9400	TYKW	20	GRF	0020.0	0040	70.0	5.0	2.5		
	606	LEAR	4	S/F	0021.1	0023.1	4.4	20			
	1415	LEAR	8	S	0021.5	0021.8	1.3	13			
	3750	TYKW	20	GRF	0030.0	0040	65.0	4.0	2.0		
	3750	TYKW	45	C	0157.5	0158.2	2.5	21.0	7.0		
	2695	LEAR	8	S	0157.8	0158.6	1.7	11			
	4995	PALE	8	S	0157.8	0158.6	1.3	24			
	4995	LEAR	8	S	0157.8	0158.8	1.7	22			
	9400	TYKW	5	S	0158.0	0200	10.0	4.0	2.0		
	2000	TYKW	45	C	0158.0	0158.7	1.5	6.0	1.5		
	3750	TYKW	29	PBI	0200.0		10.0	5.0	3.0		
	1000	TYKW	45	C	0223.0	0226.0	8.0	10.0	4.0		
	2000	TYKW	28	PRE	0235.0	0245.3	11.5	15.0	3.0		
	3750	TYKW	28	PRE	0235.0	0245.4	11.5	10.0	4.5		
	1000	TYKW	28	PRE	0240.0	0245.4	6.5	12.0	2.5		
	2930	VORO	3	S	0240.0	0246	20.0	308.0			
	4995	MANI	4	S/F	0242.6	0246.5	12.2D	350			
	606	MANI	47	GB	0242.8	0246.1	10.2D	119			
	3659	YUNN	2	S/F	0243.0	0247	11.0				RIF 91
	2695	MANI	4	S/F	0243.1	0246.5	12.9D	320			
	1415	MANI	47	GB	0243.8	0248.0	10.2D	190			
	9400	TYKW	28	PRE	0244.0	0245.5	2.5	7.0	3.5		
	9375	YUNN	2	S/F	0244.0	0247	10.0				RIF 114
	2840	PEKG	3	S	0244.0	0247.8	13.0	357.0	61.0		
	4995	PALE	4	S/F	0244.3	0247.6	16.8	420			
	9395	PEKG	5	S	0244.5	0247.6	6.5	461.0	86.0		
	8800	MANI	4	S/F	0245.1	0246.5	5.7	330			
	5730	IRKU	2	S	0245.9	0246.9	3.0	350.0			R
	1000	TYKW	45	C	0246.5	0247.6	7.5	440.0	60.0		
	3750	TYKW	45	C	0246.5	0247.8	6.5	370.0	90.0		
	2000	TYKW	45	C	0246.5	0247.9	6.5	300.0	90.0		
	9400	TYKW	45	C	0246.5	0247.7	4.5	460.0	110.0		
	2695	PALE	4	S/F	0246.8	0247.8	4.5	350			
	8800	PALE	47	GB	0246.8	0247.6	4.2	540			
	17000	NOBE	45	C	0246.8	0247.6	3.4	277.0			0
	1415	PALE	4	S/F	0246.8	0247.8	5.7	310			
	410	PALE	4	S/F	0246.8	0247.0	2.2	340			
	15400	PALE	4	S/F	0247.0	0247.6	2.3	340			
	35000	NAGO	5	S	0247.0	0247	2.0	57.0			
	606	PALE	47	GB	0247.1	0247.5	3.5	150			
	17000	NOBE	29	PBI	0250.2	0250.3	20.0	20.0			0
	9395	PEKG	29	PBI	0251.0		12.0	17.0	10.0		
	9400	TYKW	29	PBI	0251.0		85.0	17.0	6.0		
	2000	TYKW	29	PBI	0253.0		120.0	12.0	6.0		
	3750	TYKW	29	PBI	0253.0		85.0	13.0	7.0		
	1000	TYKW	30	PBI	0254.0		90.0	6.0	2.0		
	9100	GORK	22	GRF	0257.0E		339.0D				
	2950	GORK	20	GRF	0301.0E	0301.0	90.0D	21.0	10.0		
	950	GORK	23	GRF	0303.0		84.0D				
	650	GORK	22	GRF	0303.0	0324.0	68.0	6.0			
	1000	TYKW	45	C	0303.0E	0310.5	12.0D	11.0	3.0D		
	1000	TYKW	45	C	0315.0	0320.2	13.0	24.0	4.0		
	950	GORK	4	S/F	0315.0	0320.0	7.9	24.0			
	1000	TYKW	45	C	0330.0	0337.6	12.0	53.0	14.0		
	950	GORK	4	S/F	0332.8	0339.6	9.0	65.0			
	1000	TYKW	45	C	0347.0	0350.5	7.0	4.0	1.0		
	950	GORK	4	S/F	0349.6	0350.7	5.2	22.0			
	1000	TYKW	45	C	0356.0	0359.0	10.0	4.5	1.5		
	950	GORK	4	S/F	0358.3	0400.4	5.5	16.0			
	9375	YUNN	1	S	0434.0	0435	3.0				RIF 8
	606	LEAR	8	S	0502.8	0503.6	1.2	19			
	1000	TYKW	5	S	0503.3	0503.6	1.0	3.0	1.0		
	1000	TYKW	42	SER	0555.0	0608.6	28.0	68.0	9.0D		
	9375	YUNN	1	S	0558.0	0559	5.0				RIF 9
	3750	TYKW	5	S	0612.0	0613.3	8.0	3.0	1.0		
	2000	TYKW	21	GRF	0632.0	0700	45.0	3.0	1.0		
	3750	TYKW	21	GRF	0632.0	0648	60.0	7.0	3.0		
	2000	TYKW	5	S	0632.0	0634	5.0	1.5	.5		
	3750	TYKW	5	S	0632.0	0634	5.0	2.0	.7		
	9400	TYKW	20	GRF	0635.0	0645	60.0	4.0	2.0		
	9375	YUNN	1	S	0717.0	0718	5.0				RIF 51
	930	BORD	41	F	0717.0	0717.4	.6	21.0	2.0		
	810	KRAK	8	S	0733.7	0733.8	.2	17.0			
	430	KRAK	8	S	0733.7	0733.7	.1	50.0			
	1000	TYKW	42	SER	0807.8	0808.5	1.5	22.0	1.5		
	930	BORD	41	F	0842.7	0842.9	.5	17.0	2.0		
	1000	TYKW	8	S	0842.8	0842.9	.3	13.0	2.5		
	810	KRAK	8	S	0843.7	0843.8	.3	14.0			
	410	LEAR	4	S/F	0849.8	0850.6	4.2	09			
	2950	GORK	1	S	0927.4	0928.5	3.5	6.0	3.0		
	810	KRAK	8	S	1226.8	1226.8	.2	17.0			
	7000	SAOP	45	C	1230.4	1230.9	3.6	19.0	9.0		17R
	2800	OTTA	21	GRF	1255.0	1335	135.0	6.4	4.0		
	7000	SAOP	27	RF	1319.0		26.2	10.0			19R

SOLAR RADIO EMISSION
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MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
09	2800	OTTA	3 S	1325.2	1325.5	4.0	10.4	2.6		
	10715	DWIN	1 S	1330.0	1331	2.0	15.0	10.0		
	2650	DWIN	2 S/F	1335.0	1336	2.0	30.0	10.0		
	2650	DWIN	1 S	1425.0	1426	1.0	15.0	10.0		
	2800	OTTA	21 GRF	1610.0	1640	95.0	5.8	2.8		
	2800	OTTA	1 S	1715.0	1718	6.0	6.8	3.0		
	2695	PALE	4 S/F	1715.0	1718.3	4.8	15			
	4995	PALE	4 S/F	1715.1	1718.5	5.9	18			
	2800	OTTA	1 S	1728.0	1728.3	1.0	2.2	1.1		
	2800	OTTA	21 GRF	2100.0	2150	110.0	6.8	2.3		
	3750	TYKW	28 PRE	2140.0	2151	24.0	8.0	3.5		
	9400	TYKW	28 PRE	2144.0	2145.7	20.0	9.0	2.0		
	8800	PALE	8 S	2144.6	2145.3	1.7	23			
	4995	PALE	8 S	2144.6	2145.3	1.7	17			
	2000	TYKW	20 GRF	2145.0	2210	55.0	2.0	1.0		
	8800	PALE	47 GB	2203.5	2205.1	17.5	119			
	17000	NOBE	1 S	2203.6	2205.1	3.4	33.0			R
	15400	PALE	47 GB	2203.8	2205.1	17.2	48			
	3750	TYKW		2204.0	2205.2		9.0			
	3750	TYKW	45 C	2204.0	2209.4	16.0	34.0	11.0		
	9400	TYKW	45 PRE	2204.0	2205.2	16.0	90.0	24.0		
	9400	TYKW		2204.0	2208.8		33.0			
	4995	PALE	47 GB	2204.1	2208.8	16.9	28			
	2930	VORO	47 GB	2205.0	2238	85.0	549.0			
	17000	NOBE	20 GRF	2207.0	2214.3	30.0	16.0			0
	2695	PALE	47 GB	2208.6	2209.3	.2	15			
	2800	OTTA	3 S	2218.0	2219.2	2.5	10.4	5.2		
	9400	TYKW	30 PBI	2220.0		30.0	18.0	7.0		
	3750	TYKW	29 PBI	2220.0		30.0	11.0	5.0		
	2800	OTTA	29 PBI	2220.5	2220.5	27.0	4.0	2.0		
	9400	TYKW	5 S	2246.5	2247	3.0	4.0	1.5		
	9400	TYKW	45 C	2254.0	2305.4	26.0	45.0	16.0		
	3750	TYKW	45 C	2254.0	2305.5	26.0	19.0	8.0		
	2695	PENT	21 GRF	2255.0	2310	55.0	6.4	3.2		
	2000	TYKW	20 GRF	2302.0	2325	50.0	1.5	.7		
	8800	PALE	47 GB	2303.0	2305.3	3.5	33			
	2695	PENT	1 S	2305.0	2305.5	1.0	2.6	1.2		
	3750	TYKW	29 PBI	2320.0		50.0	8.0	3.0		
	9400	TYKW	29 PBI	2320.0		35.0	9.0	4.0		
10	260	ONDR	44 NS	0554.0E		508.0D	121.0	4.0		
	127	TORN	43 NS	0740.0	1400.9	314.0D	70.0			V1
	245	LEAR	8 S	0106.8	0107.6	1.0	05			
	9400	TYKW	5 S	0109.0	0110.7	8.0	6.0	1.5		
	2000	TYKW	45 C	0130.0	0131.3	2.5	17.0	2.0		
	9400	TYKW	5 S	0131.0	0131.6	5.0	4.0	1.5		
	9400	TYKW	5 S	0151.0	0151.3	.7	6.0	2.0		
	2000	TYKW	20 GRF	0155.0	0214	75.0	2.0	1.0		
	3750	TYKW	20 GRF	0156.0	0202.6	80.0	7.0	2.0		
	2950	GORK	21 GRF	0324.0E	0403.0	150.0D	7.0			
	2000	TYKW	21 GRF	0340.0	0430	140.0	3.0	1.5		
	1000	TYKW	8 S	0344.9	0345.0	.3	6.0	1.5		
	3750	TYKW	28 PRE	0350.0	0403	72.0	4.0	1.5		
	9400	TYKW	5 S	0350.0	0403	25.0	3.0	1.5		
	9400	TYKW	5 S	0422.0	0425	11.0	6.0	2.0		
	3750	TYKW	5 S	0423.0	0425	10.0	3.0	1.0		
	3750	TYKW	5 S	0443.0	0448.5	12.0	4.0	1.5		
	9400	TYKW	28 PRE	0446.0	0451	14.0	4.5	2.0		
	9100	GORK	23 GRF	0459.4	0506.9	55.0	22.0			
	9400	TYKW	45 C	0500.0	0504.5	20.0	57.0	18.0		
	3200	BERN	22 GRF	0500.0	0533.3	63.0	86.0			
	11800	BERN	22 GRF	0500.0	0533.2	60.0	48.0			
	5200	BERN	22 GRF	0500.0	0533.1	63.0	31.0			
	8400	BERN	22 GRF	0500.0	0533.3	42.0	88.0			
	8800	ATHN	4 S/F	0501.1	0533.3	47.7	78			
	4995	ATHN	4 S/F	0501.8	0533.3	46.8D	29			
	3750	TYKW	45 C	0502.0	0504.6	18.0	16.0	9.0		
	6100	KISV	4 S/F	0502.0	0504.5	7.0	23.0			
	8800	LEAR	47 GB	0502.1	0504.5	15.0	69			
	4995	LEAR	4 S/F	0502.1	0504.5	12.2	27			
	15400	LEAR	47 GB	0502.3	0504.6	3.8	19			
	9375	YUNN	7 C	0503.0	0506	17.0				RIF 11
	9100	GORK	3 S	0503.8	0504.5	2.8	36.0	15.0		
	3659	YUNN	20 GRF	0505.0	0506	18.0				RIF 5.7
	9100	GORK	1 S	0512.5	0513.5	2.1	20.0	10.0		
	3750	TYKW	30 PBI	0520.0		70.0	9.0	4.5		
	9400	TYKW	30 PBI	0520.0		60.0	5.0	2.5		
	6100	KISV	4 S/F	0532.0	0533	3.0	26.0			
	2695	ATHN	4 S/F	0532.3	0533.3	13.3D	190			
	8800	LEAR	8 S	0532.5	0533.1	1.3	88			
	2000	TYKW	45 C	0532.5	0533.2	1.1	118.0	12.0		
	9400	TYKW	5 S	0532.5	0533.3	3.0	62.0	10.0		
	3750	TYKW	45 C	0532.5	0533.3	3.0	27.0	4.5		
	2695	LEAR	8 S	0532.5	0533.3	1.1	200			
	2950	GORK	4 S/F	0532.5	0533.2	1.2	120.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS	
10	3100	CRIM	3	S	0532.5	0533.2	1.5	130.0	40.0			
	2849	PEKG	4	S/F	0532.5	0533.4	1.5	181.0	22.0			
	1415	LEAR	8	S	0532.5	0532.8	1.1	08				
	4995	LEAR	8	S	0532.6	0533.1	1.0	32				
	5730	IRKU	1	S	0532.6	0533.4	2.0	35.0			R	
	9100	GORK	3	S	0532.8	0533.3	1.2	60.0	30.0			
	9395	PEKG	3	S	0533.0	0533.3	1.0	77.0	12.0			
	3659	YUNN	2	S/F	0533.0	0534	3.0				RIF	14.3
	9375	YUNN	1	S	0533.0	0534	6.0				RIF	17.2
	15400	LEAR	8	S	0533.1	0533.3	.4	22				
	1000	TYKW	45	C	0553.0	0553.1	1.5	11.0	2.0			
	9375	YUNN	7	C	0600.0	0612	20.0				RIF	7.7
	9400	TYKW	5	S	0610.0	0610.3	1.0	6.0	2.0			
	2650	DWIN	45	C	0632.0	0633	2.0	250.0	50.0			
	3750	TYKW	28	PRE	0643.0	0702.5	31.0	7.0	4.0			
	2950	GORK	22	GRF	0645.0	0730.0	165.0E	30.0				
	9400	TYKW	28	PRE	0646.0	0700	28.0	5.0	3.0			
	2000	TYKW	28	PRE	0650.0	0714	24.0	4.0	1.5			
	1415	LEAR	4	S/F	0713.8	0729.5	22.0	11				
	3750	TYKW	45	C	0714.0	0730	26.0	29.0	22.0			
	1000	TYKW	45	C	0714.0	0730	26.0	8.0	4.0			
	2000	TYKW	45	C	0714.0	0730	26.0	22.0	15.0			
	9400	TYKW	5	S	0714.0	0740	46.0	25.0	19.0			
	2695	LEAR	4	S/F	0714.6	0729.8	34.7	33				
	200	HIRA	46	C	0714.6	0720.1	16.7	12.0	5.0		O	
	9100	GORK	22	GRF	0715.0	0742.3	98.0	23.0				
	8800	LEAR	4	S/F	0715.1	0726.3	25.0	13				
	15400	LEAR	4	S/F	0715.1	0732.3	28.7	15				
	4995	LEAR	4	S/F	0715.8	0730.5	27.5	13				
	100	HIRA	48	C	0718.3	0721.3	14.0	9000.0	1600.0		O	
	33	UPIC	48	C	0721.5	0728.6	28.0					
	29	UPIC	48	C	0722.1	0723.6	25.8					
	35000	NAGO	20	GRF	0725.0	0738	20.0	10.0				
	1000	TYKW	29	PBI	0740.0		60.0D	3.0	2.0D			
	3750	TYKW	30	PBI	0740.0		70.0D	21.0	12.0D			
	2000	TYKW	30	PBI	0740.0		70.0D	11.0	7.0D			
	2000	TYKW	20	GRF	0755.0	0810	35.0	4.0	2.0			
	3750	TYKW	20	GRF	0755.0	0800	35.0	5.0	2.0			
	9400	TYKW	29	PBI	0800.0		60.0D	20.0	15.0D			
	2650	DWIN	24	R	0815.0		15.0	15.0				
	2695	ATHN	4	S/F	0932.3	0533.3	677.9D	190				
	950	GORK	20	GRF	1113.0	1129.4	30.8	8.0	4.0			
	810	KRAK	8	S	1114.2	1114.2	.1	16.0				
	650	GORK	20	GRF	1114.5	1127.0	22.9	4.5	2.0			
	3200	BERN	47	GB	1141.0	1231.3	360.0	1720.0				
	5200	BERN	47	GB	1141.0	1231.3	360.0	2230.0				
	8400	BERN	47	GB	1141.0	1231.3	360.0	2141.0				
	2800	OTTA	28	PRE	1150.0	1202	12.0	5.4	3.0			
	11800	BERN	47	GB	1200.0	1231.3	350.0	1734.0				
	1415	ATHN	4	S/F	1201.6	1240.1	134.9D	450				
	2695	ATHN	47	GB	1201.6	1231.3	135.9D	1700				
	2800	OTTA	47	GB	1202.0	1232	101.0	2050.0	583.0			
	7000	SAOP	47	GB	1202.5	1231.3	147.5	2790.0	1395.0		16L	
	430	KRAK	27	RF	1205.6	1214.6	13.6	11.0	6.0			
	8800	ATHN	47	GB	1205.6	1231.8	131.9	2900				
	4995	ATHN	47	GB	1205.6	1231.3	131.9D	2200				
	810	KRAK			1205.8	1312.5		110.0				
	810	KRAK	48	C	1205.8	1227.4	76.0D	400.0	60.0			
	8800	SGMR	47	GB	1207.3	1232.0	103.7D	2500				
	4995	SGMR	47	GB	1207.5	1232.0	102.6D	2500				
	2695	SGMR	47	GB	1207.5	1232.0	103.6D	1000				
	1415	SGMR	47	GB	1207.5	1231.0	111.5D	920				
	15400	SGMR	47	GB	1207.6	1232.6	104.0D	1399				
	19600	BERN	47	GB	1209.0	1232.5	50.0	1149.0				
	35000	BERN	47	GB	1212.7	1231.5	50.0	613.0				
	808	ONDR	48	C	1217.0		110.0	70.0D	36.0			
	536	ONDR	48	C	1255.0	1327.5	73.0	195.0	51.0			
	536	ONDR			1255.0	1313		176.0				
	606	SGMR	47	GB	1256.5	1305.3	44.5	160				
	410	SGMR	47	GB	1258.0	1311.3	41.0D	21				
	430	KRAK	45	C	1258.0	1311.2	18.0D	120.0	18.0			
	2650	DWIN	49	GB	1302.0		140.0	470.0D				
	10715	DWIN	49	GB	1307.0		100.0	1150.0D				
	2800	OTTA	30	PBI	1343.0	1343	467.0	104.0	23.0			
	606	SGMR	4	S/F	1343.0	1400.8	23.4	70				
	410	SGMR	4	S/F	1345.1	1359.8	21.2D	119				
	2800	OTTA	47	GB	1351.0	1353.7	5.0	587.0	198.0			
	2695	SGMR	4	S/F	1351.1	1354.8	5.2	400				
	2800	OTTA	20	GRF	1520.0	1524	15.0	12.6	3.8			
	2800	OTTA	20	GRF	1542.0	1544	15.0	4.6	2.3			
	2800	OTTA	21	GRF	1846.0	1850	24.0	4.0	1.8			
	2800	OTTA	8	S	1907.2	1907.3	.3	2.2				
	2800	OTTA	1	S	1933.0	1933.3	2.0	2.8	1.4			
	2695	PENT	45	C	1959.0	2001	6.0	12.0	5.0			
	3750	TYKW	28	PRE	2150.0	2231	41.0	3.0	2.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
10	9400	TYKW	21 GRF	2216.5	2218.4	30.0	5.0	1.5		
	3750	TYKW	5 S	2231.0	2232.8	4.0	27.0	12.0		
	9400	TYKW	5 S	2231.0	2232.8	5.0	14.0	5.0		
	2000	TYKW	20 GRF	2231.0	2232	40.0	2.0	1.0		
	2800	OTTA	3 S	2231.0	2232.5	3.0	11.4	7.6		
	2800	OTTA	29 PBI	2234.0	2234	35.0	4.6	2.6		
	3750	TYKW	30 PBI	2235.0		205.0	8.0	4.0		
	9400	TYKW	45 C	2313.0	2319.7	15.0	8.0	4.0		
	2695	PENT	23 GRF	2315.0	2430	115.0	8.0	4.0		
	2000	TYKW	21 GRF	2318.0	2330	40.0	3.0	1.5		
	3750	TYKW	5 S	2319.0	2319.9	3.0	8.0	3.0		
	2695	PENT	1 S	2319.4	2319.9	5.0	7.0	3.2		
	2000	TYKW	5 S	2319.6	2319.8	3.0	2.0	.7		
	3750	TYKW	29 PBI	2322.0		20.0	3.0	1.5		
	9400	TYKW	30 PBI	2328.0		100.0	4.0	2.0		
	9400	TYKW	5 S	2347.0	2348.6	6.0	3.0	1.0		
11	245	LEAR	43 NS	0157.8	0158.1	458.2D	73			
	127	TORN	43 NS	0640.0		240.0D				V1,DISTURBED
	204	IZMI	43 NS	0930.0		1500.0D	25.0			
	208	VORO	44 NS	2100.0E		360.0D		10.0		
	245	LEAR	43 NS	2304.0E	0220.5	632.0D	119			
	9400	TYKW	5 S	0013.0	0014.3	10.0	5.0	1.5		
	17000	NOBE	1 S	0013.4	0014.3	4.0	13.0			L
	3750	TYKW	45 C	0014.0	0017.1	9.0	5.0	1.5		
	2000	TYKW	20 GRF	0015.0	0035	60.0	2.0	1.0		
	3750	TYKW	45 C	0115.0	0122.2	22.0	7.0	2.0		
	2000	TYKW	5 S	0118.0	0124	22.0	1.5	.7		
	2695	PENT	20 GRF	0118.0	0122	20.0	4.6			
	9400	TYKW	21 GRF	0119.0	0122	40.0	2.0	1.0		
	245	LEAR	8 S	0124.6	0125.1	1.4	18			
	9400	TYKW	5 S	0136.0	0136.6	4.0	5.0	1.5		
	1000	TYKW	5 S	0143.0	0143.7	2.0	1.5	.5		
	2000	TYKW	5 S	0143.0	0143.6	2.0	3.0	1.0		
	410	LEAR	8 S	0143.1	0143.6	1.7	18			
	200	HIRA	8 S	0143.2	0143.6	.5	160.0			O
	3750	TYKW	5 S	0143.3	0143.6	2.0	4.5	1.5		
	245	LEAR	8 S	0143.3	0143.5	.5	280			
	245	PALE	8 S	0143.3	0143.5	.5	320			
	245	LEAR	8 S	0146.0	0146.1	1.0	35			
	9400	TYKW	5 S	0147.0	0148.0	5.0	5.0	1.5		
	3750	TYKW	5 S	0147.5	0148.0	2.0	2.5	1.0		
	208	VORO	3 S	0233.0	0234	3.0	200.0D			
	245	LEAR	4 S/F	0233.6	0235.3	2.7	250			
	245	PALE	8 S	0235.0	0235.3	1.0	290			
	2000	TYKW	21 GRF	0235.0	0512	310.0	5.0	2.5		
	1000	TYKW	5 S	0235.0	0236.0	2.0	5.0	1.5		
	2000	TYKW	45 C	0235.0	0235.9	2.0	4.0	1.0		
	410	LEAR	8 S	0235.1	0235.6	1.2	52			
	3750	TYKW	8 S	0235.7	0235.9	.3	15.0	5.0		
	1415	PALE	8 S	0235.8	0236.0	.2	17			
	2000	TYKW	5 S	0237.0	0237.9	8.0	7.0	2.0		
	9400	TYKW	21 GRF	0237.0	0513	340.0	10.0	5.0		
	9400	TYKW	5 S	0237.0	0237.8	2.0	15.0	5.0		
	3750	TYKW	5 S	0237.0	0237.9	2.0	13.0	4.0		
	2840	PEKG	3 S	0237.0	0237.9	3.0	12.0	4.3		
	208	VORO	3 S	0237.0	0238	2.0	90.0			
	1000	TYKW	45 C	0237.2	0237.4	.8	16.0	5.0		
	9595	PEKG	3 S	0237.3	0237.8	2.7	18.0	6.3		
	2695	PALE	8 S	0237.6	0238.0	.2	13			
	4995	PALE	8 S	0237.6	0237.8	.2	17			
	2963	YUNN	1 S	0238.0	0240	3.0				RIF 15
	9375	YUNN	4 S	0238.0	0240	4.0				RIF 4
	3695	YUNN	1 S	0238.0	0241	4.0				RIF 4
	200	HIRA	8 S	0238.6	0239.0	.4	110.0			O
	9400	TYKW	29 PBI	0239.0		10.0	4.0	2.0		
	3750	TYKW	30 PBI	0239.0		10.0	2.0	.7		
	3750	TYKW	45 C	0241.0	0242.3	7.0	1.5	.5		
	3750	TYKW	21 GRF	0251.0	0512	300.0	9.0	4.0		
	2963	YUNN	22 GRF	0253.0	0257	11.0				RIF 10
	9400	TYKW	45 C	0253.5	0256.5	4.5	17.0	8.0D		
	8800	LEAR	4 S/F	0253.8	0255.6	5.8	23			
	4995	LEAR	4 S/F	0254.0	0256.5	9.1	20			
	2695	LEAR	4 S/F	0254.0	0256.6	9.8	15			
	3750	TYKW	45 C	0254.0	0256.5	8.0	20.0	9.0		
	3695	YUNN	22 GRF	0254.0	0258	16.0				RIF 4
	9375	YUNN	22 GRF	0254.0	0302	20.0				RIF 13
	15400	LEAR	4 S/F	0254.1	0255.5	5.9	11			
	5730	IRKU	1 S	0254.2	0256.6	4.0	27.0			L
	4995	PALE	4 S/F	0254.6	0255.6	3.7	27			
	2840	PEKG	4 S/F	0255.0	0256.1	5.0	14.0	10.0		
	8800	PALE	4 S/F	0255.1	0255.6	3.2	27			
	2000	TYKW	5 S	0256.0E	0256.5	14.0D	3.0	1.0D		
	2695	PALE	8 S	0256.3	0256.6	2.0	23			
	15400	PALE	8 S	0256.6	0256.8	1.7	38			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
11	9400	TYKW	29 PBI	0258.0		15.0	5.0	2.0		
	3750	TYKW	30 PBI	0302.0		75.0	5.0	2.0		
	9400	TYKW	5 S	0314.0	0314.4	1.5	3.0	1.0		
	2000	TYKW	5 S	0314.0	0314.4	1.0	1.0	.4		
	1000	TYKW	45 C	0314.0	0314.7	1.0	2.5	.7		
	2000	TYKW	28 PRE	0325.0	0331	6.0	1.5	.7		
	15400	PALE	8 S	0327.0	0327.0	.8	51			
	2695	PALE	8 S	0327.0	0327.1	.3	18			
	8800	PALE	8 S	0327.0	0327.1	.3	23			
	1415	PALE	8 S	0327.0	0327.1	.3	16			
	4995	PALE	8 S	0327.0	0327.1	.3	20			
	2950	GORK	21 GRF	0329.0	0413.0	200.0D	8.0	4.0		
	1000	TYKW	21 GRF	0330.0	0555	24.0	2.0	1.0		
	15400	PALE	8 S	0330.3	0332.0	2.0	38			
	2695	PALE	4 S/F	0330.3	0332.0	2.2	22			
	4995	PALE	4 S/F	0330.3	0332.0	2.5	32			
	5730	IRKU	1 S	0330.6	0332.0	3.0	27.0			L
	9100	GORK	1 S	0330.9	0332.1	3.1	23.0	10.0		
	2000	TYKW	5 S	0331.0	0332.0	2.0	11.0	5.0		
	9395	PEKG	3 S	0331.0	0332.1	2.0	18.0			
	9375	YUNN	45 C	0331.0	0334	4.0				RIF 10.8
	9400	TYKW	5 S	0331.0	0332.2	2.0	20.0	10.0		
	2840	PEKG	3 S	0331.0	0332	3.0	14.0	6.0		
	3750	TYKW	5 S	0331.0	0332.1	3.0	18.0	8.0		
	2950	GORK	1 S	0331.2	0332.0	1.6	9.0	4.5		
	8800	PALE	8 S	0331.5	0332.0	1.6	35			
	2695	LEAR	8 S	0331.6	0332.1	.7	11			
	8800	LEAR	8 S	0331.6	0332.1	.9	25			
	4995	LEAR	8 S	0331.6	0332.1	.7	20			
	1415	PALE	8 S	0332.3	0332.3	.2	13			
	9400	TYKW	30 PBI	0333.0		50.0	5.0	2.0		
	2000	TYKW	29 PBI	0333.0		15.0	3.0	1.0		
	3750	TYKW	29 PBI	0334.0		15.0	2.0	1.0		
	3750	TYKW	5 S	0355.0	0400.6	13.0	3.0	1.0		
	2000	TYKW	5 S	0403.0	0403.4	2.0	1.5	.5		
	1000	TYKW	45 C	0403.0	0403.3	1.5	3.0	.7		
	2000	TYKW	21 GRF	0408.0	0427	50.0	4.0	2.0		
	3750	TYKW	8 S	0408.9	0409.0	.4	1.5	.5		
	2000	TYKW	5 S	0412.0	0413.3	6.0	1.5	.7		
	3750	TYKW	5 S	0412.0	0412.7	5.0	6.0	1.5		
	9400	TYKW	5 S	0412.0	0412.7	4.0	13.0	5.0		
	9100	GORK	1 S	0412.2	0412.7	3.6	13.0	6.0		
	8800	LEAR	8 S	0412.5	0412.6	.8	20			
	4995	LEAR	8 S	0412.6	0412.6	.2	11			
	3750	TYKW	45 C	0422.5	0425.8	7.0	2.0	.5		
	9375	YUNN	1 S	0440.0	0442	3.0				RIF 9
	9375	YUNN	40 F	0446.0	0449	7.0				RIF 6.5
	3750	TYKW	5 S	0447.0	0448.4	3.0	7.0	1.5		
	9400	TYKW	5 S	0447.5	0448.4	2.0	4.0	1.5		
	2000	TYKW	5 S	0448.0	0448.4	2.0	3.0	1.0		
	3750	TYKW	21 GRF	0515.0	0521	135.0	5.0	2.0		
	9400	TYKW	5 S	0518.0	0521	22.0	6.0	2.0		
	2000	TYKW	21 GRF	0518.0	0525	110.0	3.0	1.5		
	9100	GORK	21 GRF	0518.2	0531.6	15.2	5.0			
	9100	GORK	1 S	0521.7	0530.1	2.0	16.0	8.0		
	9400	TYKW	5 S	0529.0	0530.2	6.0	24.0	6.0		
	9395	PEKG	5 S	0529.0	0530.3	1.2	25.0	13.0		
	17000	NOBE		0529.8						L
	15400	LEAR	8 S	0529.8	0530.1	1.5	51			
	8800	LEAR	8 S	0529.8	0530.1	1.0	26			
	2695	MANI	4 S/F	0541.8	0545.1	9.7D	86			
	3200	BERN	45 C	0542.0	0545.7	11.0	.0			ONLY PAPER REC
	5200	BERN	45 C	0542.0	0545.7	11.0	55.0			ONLY PAPER REC
	3695	YUNN	45 C	0542.0	0546	10.0				RIF 25
	3750	TYKW	45 C	0542.0	0543.4	3.0	6.0	1.5		
	2000	TYKW	5 S	0542.5	0543.4	2.5	5.0	1.5		
	9400	TYKW	5 S	0542.5	0543.1	2.0	3.0	1.0		
	2840	PEKG	45 C	0542.7	0546.0	9.3	96.0	12.0		
	2950	GORK	1 S	0542.7	0543.2	1.2	7.0	3.5		
	2963	YUNN	45 C	0543.0	0548	10.0				RIF 27
	1415	MANI	4 S/F	0543.8	0544.0	5.0D	46			
	8800	MANI	4 S/F	0544.1	0545.1	6.7	47			
	4995	MANI	4 S/F	0544.1	0545.1	9.0D	69			
	8400	BERN	45 C	0544.8	0545.7	5.0	43.0			ONLY PAPER REC
	11800	BERN	45 C	0544.8	0545.7	5.0	38.0			ONLY PAPER REC
	2000	TYKW	45 C	0545.0	0546.0	8.0	50.0	10.0		
	3750	TYKW	45 C	0545.0	0546.0	7.0	66.0	15.0		
	9400	TYKW	45 C	0545.0	0545.8	8.0	39.0	8.0		
	2950	GORK	45 C	0545.2	0545.8	5.7	79.0			
	2950	GORK		0545.2	0548.4		25.0			
	9100	GORK		0545.3	0548.1		30.0			
	9100	GORK	46 C	0545.3	0545.9	8.6	39.0			
	8800	ATHN	4 S/F	0545.5	0545.8	3.5	47			
	1415	LEAR	4 S/F	0545.5	0548.6	5.0	25			
	15400	LEAR	8 S	0545.6	0545.8	.4	28			

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
11	2695	LEAR	4 S/F	0545.6	0545.8	3.2	88			
	8800	LEAR	47 GB	0545.6	0545.8	3.0	47			
	4995	ATHN	4 S/F	0545.6	0546.0	3.7D	46			
	4995	LEAR	47 GB	0545.6	0545.8	3.0	48			
	17000	NOBE	1 S	0545.6	0545.9	.6	28.0			0
	9375	YUNN	45 C	0546.0	0547	6.0				RIF 10
	17000	NOBE	20 GRF	0547.2	0548.3	12.0	28.0			0
	1000	TYKW	45 C	0548.0	0548.6	1.5	47.0	3.0		
	3750	TYKW	21 GRF	0557.0	0640	90.0	3.0	1.5		
	9400	TYKW	5 S	0610.5	0611.2	1.5	9.0	2.0		
	9100	GORK	1 S	0610.6	0611.1	1.5	9.4	5.0		
	8800	LEAR	8 S	0610.8	0611.1	.3	18			
	9400	TYKW	5 S	0616.0	0616.9	2.0	7.0	2.5		
	9100	GORK	1 S	0616.5	0616.8	1.5	5.3			
	8800	LEAR	8 S	0616.6	0616.8	.2	16			
	9400	TYKW	29 PBI	0616.0		12.0	2.0	1.0		
	3100	CRIM	20 GRF	0618.0	0621.0	16.0	6.0	2.0		
	3100	CRIM	1 S	0642.6	0643.2	2.0	10.0	3.0		
	204	IZMI	4 S/F	0643.0	0643.5	1.5	105.0	70.0		
	2650	DWIN	2 S/F	0645.0	0647	5.0	80.0	30.0		
	3100	CRIM	7 C	0645.4	0645.9	7.0	86.0	29.0		
	3100	CRIM		0645.4	0648.3		33.0			
	430	KRAK	8 S	0655.7	0655.8	.3	44.0			
	9400	TYKW	5 S	0717.0	0718.2	4.0	7.0	2.5		
	2840	PEKG	3 S	0717.5	0718.7	4.5	16.0	4.4		
	3200	BERN	1 S	0717.5	0718.5	5.0	.0			ONLY PAPER REC
	5200	BERN	1 S	0717.5	0718.5	5.0	17.0			ONLY PAPER REC
	8800	LEAR	8 S	0717.6	0718.8	2.0	08			
	9100	GORK	1 S	0717.7	0718.6	2.4	8.0	4.0		
	2950	GORK	1 S	0717.9	0718.6	2.1	13.0	6.5		
	3750	TYKW	45 C	0718.0	0718.7	3.0	18.0	5.0		
	2000	TYKW	5 S	0718.0	0718.7	2.0	5.0	2.0		
	4995	LEAR	8 S	0718.3	0718.8	.2	18			
	2695	LEAR	8 S	0718.3	0718.8	.2	16			
	2963	YUNN	1 S	0719.0	0720	2.0				RIF 6
	3695	YUNN	3 S	0719.0	0720	3.0				RIF 11
	2000	TYKW	29 PBI	0720.0		7.0	1.5	.7		
	1000	TYKW	45 C	0725.0	0726.6	3.0	8.0	1.5		
	1000	TYKW	5 S	0744.3	0744.6	1.0	4.0	1.0		
	204	IZMI	4 S/F	0747.5	0748.2	1.0	75.0	48.0		
	810	KRAK	8 S	0748.0	0748.0	.1	15.0			
	410	LEAR	8 S	0750.8	0751.1	.8	18			
	430	KRAK	42 SER	0751.0	0751.0	5.0	25.0			
	245	LEAR	8 S	0751.1	0751.1	.2	18			
	1415	LEAR	8 S	0758.1	0758.1	.2	73			
	1000	TYKW	8 S	0758.1	0758.2	.2	8.0	2.0		
	2650	DWIN	1 S	0818.0	0819	2.0	15.0	10.0		
	9100	GORK	22 GRF	0855.4	0856.2	139.0	12.0			
	3100	CRIM	24 R	0912.0	1100.0	188.0	9.0	3.0		
	2695	ATHN	4 S/F	0945.8	0546.1	694.6D	74			
	2800	OTTA	20 GRF	1300.0	1304	60.0	3.6	1.8		
	2800	OTTA	1 S	1403.0	1404.5	2.5	2.0	1.0		
	7000	SAOP	45 C	1403.0	1404.4	7.4	12.0	8.0		15R
	2800	OTTA	21 GRF	1530.0	1650	125.0	9.2	5.0		
	4995	ATHN	4 S/F	1532.6	1535.1	15.0	13			
	2695	ATHN	4 S/F	1532.6	1535.3	8.0D	21			
	2800	OTTA	3 S	1532.7	1533.2	1.0	10.0	4.6		
	2800	OTTA	8 S	1534.8	1535.2	.8	20.6			
	11800	BERN	23 GRF	1556.0	1608.3	30.0	58.0			ONLY PAPER REC
	2800	OTTA	1 S	1556.0	1557.8	4.0	9.2	3.0		
	8400	BERN	23 GRF	1556.0	1608.3	30.0	32.0			ONLY PAPER REC
	5200	BERN	23 GRF	1556.0	1608.3	30.0	30.0			ONLY PAPER REC
	3200	BERN	23 GRF	1556.0	1608.3	30.0	.0			ONLY PAPER REC
	7000	SAOP	45 C	1557.0	1603.4	9.2	18.0	10.0		13R
	4995	ATHN	4 S/F	1557.3	1608.3	20.5D	37			
	4995	SGMR	8 S	1557.3	1557.6	1.8	11			
	2695	SGMR	8 S	1557.3	1557.8	1.5D	09			
	19600	BERN	23 GRF	1603.0	1608.3	9.0	55.0			ONLY PAPER REC
	2800	OTTA	1 S	1603.1	1603.4	1.0	7.2	3.0		
	7000	SAOP	45 C	1606.7	1608.4	3.1	30.0	15.0		12R
	8800	ATHN	4 S/F	1606.8	1608.3	5.8	37			
	2800	OTTA	3 S	1607.0	1608.4	3.0	22.8	5.7		
	2695	ATHN	4 S/F	1607.6	1608.0	5.5D	28			
	2650	DWIN	41 F	1632.0	1635	3.0	20.0	10.0		
	245	SGMR	47 GB	1635.0	1635.1	.3	700			
	245	PALE	47 GB	1635.1	1635.1	.4	700			
	2650	DWIN	1 S	1657.0	1658	3.0	10.0	5.0		
	2650	DWIN	41 F	1703.0	1708	7.0	20.0	10.0		
	10715	DWIN	41 F	1703.0	1708	6.0	40.0	20.0		
	1415	PALE	8 S	1719.6	1719.8	.5	15			
	4995	PALE	8 S	1719.6	1719.8	.7	20			
	8800	PALE	8 S	1719.6	1719.8	.5	15			
	15400	PALE	8 S	1719.6	1719.8	.5	30			
	2695	PALE	8 S	1719.6	1719.8	.7	25			
	2800	OTTA	1 S	1731.0	1731.3	1.0	2.8	1.4		

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11	930	BORD	41	F	1758.4	1758.4	.5	184.0	2.0		
	2800	OTTA	1	S	1825.0	1826.7	3.0	4.6	2.0		
	245	PALE	8	S	1853.0	1853.5	.8	200			
	410	PALE	8	S	1853.1	1853.3	1.2	150			
	245	PALE	47	GB	1909.8	1909.8	.2	1300			
	2800	OTTA	1	S	1946.0	1948.3	4.0	4.6	2.0		
	2800	OTTA	20	GRF	2010.0	2015	25.0	3.6	1.0		
	245	PALE	8	S	2048.8	2049.6	1.7	119			
	410	PALE	8	S	2049.3	2049.6	.5	200			
	245	PALE	8	S	2100.0	2101.0	1.6	40			
	2000	TYKW	21	GRF	2140.0	2240	140.0	3.0	1.5		
	3750	TYKW	21	GRF	2140.0	2240 U	140.0	6.0	3.0U		RAIN
	2695	PENT	21	GRF	2145.0	2256	130.0	8.2	3.8		
	1000	TYKW	20	GRF	2150.0	2240	120.0	2.0	1.0		
	2000	TYKW	20	GRF	2248.0	2256	60.0	4.0	2.0		
	3750	TYKW	45	C	2252.0U	2253.7	6.0	7.0	2.0U		
	2695	PENT	1	S	2253.0	2254	2.0	3.6	1.8		
	3750	TYKW	29	PBI	2258.0		35.0	1.5	.7U		
	9400	TYKW	5	S	2339.0U	2339.8	2.0U	28.0U	6.0U		
	9395	PEKG	3	S	2339.3	2339.8	3.7	26.0	10.0		
	8800	PALE	8	S	2339.3	2339.8	.7	26			
	15400	PALE	4	S/F	2339.3	2339.8	2.5	15			
12	245	PALE	43	NS	0220.3	0251.6	31.3D	250			
	200	HIRA	43	NS	0549.0	0645	225.0D	60.0	20.0		MR
	127	TORN	44	NS	0600.0E		540.0D		1.0		V1,DISTURBED
	204	IZMI	44	NS	0600.0E		2400.0D	100.0			
	245	PALE	43	NS	1613.0	2352.5	748.0D	420			
	208	VORO	44	NS	2100.0E		360.0D		9.0		
	245	LEAR	43	NS	2345.1	0013.3	536.9D	110			
	9400	TYKW	21	GRF	0000.0U	0121	170.0U	11.0	7.0U		RAIN
	3750	TYKW	21	GRF	0004.0	0026	40.0	6.0	3.0		
	3750	TYKW	21	GRF	0004.0	0121	200.0	4.0	2.0		
	2695	PENT	23	GRF	0004.0	0105	100.0D	9.6			
	1000	TYKW	5	S	0009.0	0009.3	.7	3.0	.5		
	2000	TYKW	21	GRF	0010.0	0125	200.0	5.5	2.5		
	2000	TYKW	21	GRF	0012.0	0022	30.0	3.0	1.5		
	3750	TYKW	5	S	0037.0	0037.6	1.5	5.5	1.5		
	2000	TYKW	5	S	0037.4	0037.6	.6	3.5	1.0		
	3750	TYKW	5	S	0059.0	0101.2	3.0	15.0	6.0		
	2000	TYKW	5	S	0100.0	0101.3	2.0	9.0	3.0		
	2695	PENT	3	S	0100.0	0101	2.5	11.0	3.8		
	2000	TYKW	29	PBI	0102.0		17.0	3.0	1.5		
	3750	TYKW	30	PBI	0102.0		10.0	5.0	2.0		
	3750	TYKW	5	S	0107.0	0107.8	2.0	3.0	1.0		
	1000	TYKW	20	GRF	0125.0	0145	60.0	1.0	.5		
	2000	TYKW	20	GRF	0130.0	0140	45.0	4.0	2.0		
	3750	TYKW	20	GRF	0130.0	0142	60.0	7.0	3.0		
	9400	TYKW	20	GRF	0135.0U	0142	65.0U	4.0	2.0U		
	1000	TYKW	42	SER	0316.0	0317.0	3.5	18.0	1.5		
	2000	TYKW	5	S	0316.0	0317	3.0	1.0	.5		
	410	PALE	8	S	0316.3	0316.6	.7	280			
	1000	TYKW	8	S	0319.4	0319.5	.3	4.0	1.0		
	2000	TYKW	8	S	0319.4	0319.5	.2	10.0	3.0		
	2000	TYKW	8	S	0320.1	0320.2	.3	3.0	1.0		
	2000	TYKW	47	GB	0330.0	0422.2	100.0	2550.0	490.0		
	9400	TYKW	21	GRF	0340.0	0400	180.0U	7.0	3.5U		RAIN
	2000	TYKW	21	GRF	0344.0	0400	180.0	2.0	1.0		
	3750	TYKW	21	GRF	0344.0	0400	190.0	6.0	2.5		
	2000	TYKW	45	C	0345.5	0347.9	3.5	3.5	1.5		
	2950	GORK	1	S	0347.2	0348.0	1.2	4.0	2.0		
	3750	TYKW	5	S	0347.5	0348.0	1.0	3.0	1.0		
	2000	TYKW	29	PBI	0349.0		8.0	1.0	.5		
	2000	TYKW	5	S	0439.8	0440.0	.5	3.0	1.0		
	2000	TYKW	21	GRF	0445.0	0510	100.0	3.0	1.5		
	2950	GORK	22	GRF	0446.0	0505.3	59.0	12.0	6.0		
	3750	TYKW	5	S	0447.0	0505.3	23.0	17.0	7.0		
	9400	TYKW	28	PRE	0449.0	0450	11.0	4.0	2.0		
	3695	YUNN	21	GRF	0450.0	0506	32.0				RIF 9.4
	9100	GORK	22	GRF	0458.9	0505.2	46.0	20.0			
	9400	TYKW	5	S	0500.0	0505.3	10.0	17.0	9.0		
	2963	YUNN	21	GRF	0504.0	0508	23.0				RIF 3.9
	9375	YUNN	21	GRF	0504.0	0508	9.0				RIF 4.1
	3750	TYKW	30	PBI	0510.0		70.0	9.0	4.0		
	9400	TYKW	29	PBI	0510.0		70.0U	8.0	4.0U		
	3750	TYKW	5	S	0516.0	0518	5.0	2.5	1.0		
	3695	YUNN	1	S	0526.0	0529	8.0				RIF 4.3
	2840	PEKG	1	S	0527.7	0527.8	2.0	8.0	2.0		
	2000	TYKW	5	S	0527.0	0527.7	3.0	3.5	1.5		
	3750	TYKW	5	S	0527.0	0527.8	2.0	7.0	4.0		
	3100	CRIM	1	S	0527.0	0527.6	1.5	7.0	3.0		
	2963	YUNN	1	S	0529.0	0530	4.0				RIF 3.6
	3750	TYKW	29	PBI	0529.0		20.0	3.0	1.5		
	3750	TYKW	20	GRF	0740.0	0800	60.0U	3.0	1.5U		
	2000	TYKW	20	GRF	0740.0	0800	60.0	2.0	1.0		
	9400	TYKW	20	GRF	0740.0	0800	60.0U	5.0	2.0U		

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12	2950	GORK	2Ø GRF	Ø746.1	Ø757.Ø	18.7	3.Ø	1.5		
	3695	YUNN	6 S	Ø836.Ø	Ø836.5	2.Ø				RIF 4.3
	2963	YUNN	1 S	Ø837.Ø	Ø837.5	2.Ø				RIF 5.3
	9375	YUNN	4 S/F	Ø900.Ø	Ø901	4.Ø				RIF 10.9
	29	UPIC	42 SER	Ø934.Ø		143.6				
	33	UPIC	42 SER	Ø934.Ø		143.6				
	9100	GORK	2Ø GRF	1033.Ø	1118.Ø	87.ØE	6.Ø			
	2950	GORK	2Ø GRF	1041.1	1046.5	42.8	7.Ø	3.5		
	950	GORK	22 GRF	1042.2	1047.9	14.4	23.Ø			
	810	KRAK	41 F	1043.Ø	1050.5	11.5	29.Ø			
	930	BORD	41 F	1043.Ø	1048.2	12.Ø	46.Ø	4.Ø		
	650	GORK	2Ø GRF	1043.9	1047.7	7.6	4.Ø	2.Ø		
	2800	OTTA	2Ø GRF	1330.Ø	1337	20.Ø	3.6	1.6		
	2800	OTTA	26A FAL	1610.Ø	1650	40.Ø	-4.6	-2.3		
	2800	OTTA	8 S	1646.7	1647	.5	2.2	1.1		
	2800	OTTA	2Ø GRF	1835.Ø	1844	20.Ø	2.2	1.1		
	2800	OTTA	1 S	2040.Ø	2046	10.Ø	3.2	1.2		
	2000	TYKW	2Ø GRF	2230.Ø	2300	90.Ø	1.Ø	.5		
	3750	TYKW	2Ø GRF	2230.Ø	2258	90.Ø	5.Ø	2.5		
	9400	TYKW	21 GRF	2235.Ø	2250	80.Ø	3.Ø	1.5		
	9400	TYKW	5 S	2256.Ø	2257.7	5.Ø	4.Ø	1.5		
	208	VORO	46 C	2352.Ø	2353	4.Ø	280.Ø			
	208	VORO		2352.Ø	2354		280.Ø			
	245	LEAR	47 GB	2352.6	2353.8	1.9	3000			
	410	LEAR	47 GB	2354.3	2354.3	.3	570			
	606	LEAR	8 S	2354.3	2354.3	.2	13			
13	3750	TYKW	21 GRF	Ø012.Ø	Ø040	95.Ø	3.5	2.Ø		
	3750	TYKW	5 S	Ø013.Ø	Ø014.4	3.Ø	2.Ø	.5		
	2000	TYKW	5 S	Ø014.2	Ø014.4	.5	2.Ø	.7		
	3750	TYKW	28 PRE	Ø210.Ø	Ø330	80.Ø	6.Ø	3.Ø		
	2000	TYKW	28 PRE	Ø210.Ø	Ø319.2	80.Ø	12.Ø	3.Ø		
	9400	TYKW	28 PRE	Ø320.Ø	Ø340	20.Ø	12.Ø	4.Ø		
	3750	TYKW	47 GB	Ø330.Ø	Ø420.1	100.Ø	4750.Ø	770.Ø		
	8800	MANI	47 GB	Ø330.Ø	Ø418.5	98.5	4400			
	2840	PEKG	47 GB	Ø332.Ø	Ø420.3	110.Ø	2502.ØD			
	2950	GORK	47 GB	Ø333.ØE	Ø419.9	348.ØD	1146.Ø			
	1000	TYKW	47 GB	Ø333.Ø	Ø418.3	97.Ø	2700.Ø	220.Ø		
	3695	YUNN	45 C	Ø335.Ø	Ø422	128.Ø				RIF 141.7
	2930	VORO	47 GB	Ø335.Ø	Ø417	85.Ø	137.ØD			
	9375	YUNN	47 GB	Ø335.Ø	Ø426	130.Ø				RIF 469.2
	650	GORK		Ø336.9	Ø827.7		180.Ø			
	650	GORK		Ø336.9	Ø819.6		190.Ø			
	650	GORK	47 GB	Ø336.9	Ø814.Ø	135.Ø	230.Ø			
	9395	PEKG	47 GB	Ø337.Ø	Ø418.7	63.Ø	3260.Ø	944.Ø		
	950	GORK	47 GB	Ø337.2	Ø414.Ø	83.Ø	427.Ø			
	9100	GORK	47 GB	Ø337.3	Ø418.8	111.Ø	4350.Ø			
	5730	IRKU	47 GB	Ø339.Ø	Ø345.1	80.ØD	90.Ø			R
	5730	IRKU		Ø339.Ø	Ø409.6		470.Ø			R
	5730	IRKU		Ø339.Ø	Ø403.4		335.Ø			R
	5730	IRKU		Ø339.Ø	Ø413		620.ØD			R
	5730	IRKU		Ø339.Ø	Ø358.Ø		170.Ø			R
	9400	TYKW	47 GB	Ø340.Ø	Ø418.7	80.Ø	4100.Ø	720.Ø		
	500	HIRA	48 C	Ø341.5	Ø414.Ø	105.Ø	230.Ø	90.Ø		MR
	200	HIRA	27 RF	Ø344.2	Ø426.6	105.Ø	300.Ø	45.Ø		MR
	17000	NOBE	28 PRE	Ø344.3	Ø412.5	28.2	145.Ø			L
	100	HIRA	46 C	Ø348.Ø	Ø419.3	107.Ø	290.Ø	40.Ø		MR
	100	HIRA		Ø348.Ø	Ø455.4		35.Ø			MR
	1415	ATHN	47 GB	Ø354.1	Ø423.6	71.4D	1900			
	4995	ATHN	47 GB	Ø354.1	Ø420.3	80.2D	3300			
	8800	ATHN	47 GB	Ø354.1E	Ø420.3	76.4	4600			
	35000	NAGO	5 S	Ø412.Ø	Ø419	20.Ø	352.Ø			
	17000	NOBE	47 GB	Ø412.5		30.Ø	660.ØD			L
	9395	PEKG	29 PBI	Ø440.Ø		50.ØD	21.2			
	17000	NOBE	29 PBI	Ø442.5	Ø442.5	42.Ø	72.Ø			Ø
	9100	GORK	29 PBI	Ø448.3	Ø527.9	238.Ø	90.Ø			
	950	GORK	29 PBI	Ø457.5	Ø457.7	422.ØE	57.Ø			
	9400	TYKW	29 PBI	Ø500.Ø		240.ØD	125.Ø	50.ØD		
	1000	TYKW	29 PBI	Ø510.Ø		230.Ø	19.Ø	6.Ø		INTERFERENCE
	3750	TYKW	29 PBI	Ø510.Ø		230.Ø	80.Ø	35.Ø		
	2000	TYKW	29 PBI	Ø510.Ø		230.Ø	50.Ø	23.Ø		
	3100	CRIM	26 FAL	Ø615.ØE	Ø848.Ø		100.Ø			
	9375	YUNN	40 F	Ø721.Ø	Ø726	9.Ø				RIF 21
	9375	YUNN	1 S	Ø731.Ø	Ø732	4.Ø				RIF 21
	9375	YUNN	40 F	Ø742.Ø	Ø746	7.Ø				RIF 25.5
	9375	YUNN	1 S	Ø933.Ø	Ø939	9.Ø				RIF 11.5
	33	UPIC	8 S	Ø941.4	Ø941.4	.3				
	29	UPIC	2 S/F	Ø941.5	Ø941.7	.4				
	127	TORN	2 S/F	1048.7	1049.4	1.8	10.Ø	6.Ø		
	9100	GORK	2Ø GRF	1104.5	1107.5	10.6	8.Ø	3.Ø		
	2800	OTTA	2Ø GRF	1145.Ø	1205	55.Ø	3.2	1.8		
	930	BORD	8 S	1206.3	1206.3	.1	17.Ø	1.Ø		
	2800	OTTA	2Ø GRF	1430.Ø	1610	125.Ø	4.6	2.Ø		
	8400	BERN	3 S	1442.1	1444.Ø	3.Ø	46.Ø			
	5200	BERN	3 S	1443.5	1444.Ø	1.Ø	12.Ø			ONLY PAPER REC

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
13	3200	BERN	3	S	1443.5	1444.0	1.0	.0			ONLY PAPER REC
	11800	BERN	3	S	1443.7	1444.0	1.0	48.0			
	7000	SAOP	3	S	1443.7	1444.0	1.3	12.0	6.0		0
	10715	DWIN	1	S	1444.0	1444	1.0	50.0	20.0		
	2800	OTTA	21	GRF	1755.0	1845	165.0	11.4	6.0		
	2800	OTTA	3	S	1758.0	1801.2	12.0	12.2	5.8		
	1415	PALE	8	S	1800.3	1800.8	2.0	17			
	7000	SAOP	45	C	1800.6	1811.7	32.1	31.0	15.0		12L
	2695	PALE	8	S	1801.1	1802.1	1.4	20			
	2800	OTTA	1	S	1811.2	1811.8	2.0	3.6	1.8		
	3750	TYKW	200	GRF	2110.0	2122	45.0	3.0	1.5		
	3750	TYKW	20	GRF	2205.0	2230	45.0	4.0	2.0		
	2000	TYKW	20	GRF	2210.0	2225	4.0	1.5	.7		
	2800	OTTA	20	GRF	2210.0	2230	40.0	3.4	1.7		
	9400	TYKW	21	GRF	2211.0	2230	45.0	3.0	1.5		
	9400	TYKW	5	S	2243.0	2243.3	1.0	4.0	1.5		
	3750	TYKW	21	GRF	2300.0	0010	125.0	7.0	3.5		
	2695	PENT	23	GRF	2300.0	0010	220.0D	11.2			
	9400	TYKW	21	GRF	2310.0	0010	110.0	3.0	1.5		
	2000	TYKW	21	GRF	2320.0	0010	110.0	6.0	2.5		
	3750	TYKW	20	PRE	2320.0	2321.0	3.0	3.0	1.5		
	9400	TYKW	5	S	2323.0	2324.8	3.0	10.0	4.0		
	3750	TYKW	5	S	2323.0	2325.0	3.0	35.0	10.0		
	2000	TYKW	5	S	2323.0	2325.0	3.0	3.5	.5		
	2695	PENT	21	GRF	2323.0	2333	14.0	7.6	3.0		
	2695	PENT	1	S	2324.2	2325	1.8	6.4	3.0		
	8800	PALE	8	S	2324.6	2324.8	.4	18			
	4995	PALE	8	S	2324.6	2325.0	.7	25			
	3750	TYKW	30	PBI	2326.0		17.0	7.0	3.5		
	9400	TYKW	29	PBI	2326.0	0010	18.0	5.0	3.0		
	2000	TYKW	30	PBI	2326.0		16.0	1.5	.7		
	2000	TYKW	5	S	2331.0	2333.0	4.0	6.0	2.0		
	3750	TYKW	5	S	2332.0	2333.0	4.0	3.5	1.5		
14	260	ONDR	44	NS	0645.0E		445.0D	57.0			
	127	TORN	43	NS	0835.0		345.0D		2.0		V0,DISTURBED
	2000	TYKW	21	GRF	0110.0	0200	90.0	1.5	.7		
	3750	TYKW	21	GRF	0110.0	0135	90.0	2.0	1.0		
	2000	TYKW	5	S	0144.0	0145.7	5.0	1.5	.5		
	9400	TYKW	5	S	0159.0	0159.8	2.0	3.0	1.0		
	3750	TYKW	5	S	0159.0	0200	2.0	1.0	.3		
	2930	VORO	3	S	0310.0	0316	10.0	481.0			
	1415	MANI	47	GB	0310.0	0320.0	14.5D	36			
	2000	TYKW	5	S	0314.0	0315.5	8.0	200.0	50.0		
	3750	TYKW	47	GB	0314.0	0315.5	8.0	890.0	130.0		
	2950	GORK	3	S/F	0314.0	0315.0U	5.3U	98.0			
	9400	TYKW	47	GB	0314.0	0315.4	6.0	600.0	110.0		
	9100	GORK	3	S	0314.3	0315 U	5.2	240.0D			
	2695	LEAR	4	S/F	0314.3	0315.5	8.2	490			
	8800	MANI	47	GB	0314.3	0315.1	9.7	660			
	4995	LEAR	47	GB	0314.3	0315.3	8.2	1199			
	2695	MANI	4	S/F	0314.3	0315.3	9.7D	440			
	8800	LEAR	47	GB	0314.5	0315.3	10.3	770			
	15400	LEAR	4	S/F	0314.5E	0315.3	10.3	94			
	4995	MANI	47	GB	0314.5	0315.1	9.5D	1399			
	2840	PEKG	47	GB	0314.5	0315.2		822.0			
	9395	PEKG	47	GB	0314.5	0315.5	8.5	568.0	101.0		
	1000	TYKW	5	S	0314.5	0315.8	4.0	3.0	1.0		
	17000	NOBE	3	S	0314.5	0315.4	4.6	172.0			R
	5730	IRKU	45	C	0314.6	0315.5	3.0	180.0D			L
	5730	IRKU			0314.6	0315.9		180.0D			R
	35000	NAGO	5	S	0315.0	0315	4.0	34.0			
	3695	YUNN	29	PBI	0315.0	0316	25.0				RIF 237.3
	9375	YUNN	29	PBI	0315.0	0316	91.0				RIF 148
	1415	LEAR	8	S	0315.1	0315.6	1.2	44			
	2963	YUNN	29	PBI	0316.0	0317	24.0				RIF 178.6
	17000	NOBE	29	PBI	0319.0	0319.0	30.0	26.0			0
	5730	IRKU	29	PBI	0319.0		7.0	46.0			R
	2950	GORK	29	PBI	0319.3	0319.5	19.8	20.0	10.0		
	9100	GORK	29	PBI	0319.5	0321.5	30.0	28.0			
	9400	TYKW	29	PBI	0320.0		30.0	17.0	7.0		
	2000	TYKW	30	PBI	0322.0		60.0	10.0	3.0		
	3750	TYKW	29	PBI	0322.0		65.0	15.0	3.5		
	2000	TYKW	20	GRF	0340.0	0350	40.0	2.0	1.0		
	3750	TYKW	21	GRF	0440.0	0520	12.0	2.0	1.0		
	2000	TYKW	21	GRF	0450.0	0520	130.0	3.5	1.5		
	950	GORK	29	PBI	0457.5	0457.7	422.0E	57.0			
	2000	TYKW	5	S	0550.0	0550.7	4.0	1.5	.5		
	8800	ATHN	47	GB	0553.3	0556.3	5.8	130			
	9375	YUNN	40	F	0614.0	0617	5.0				RIF 20.9
	3100	CRIM	26	FAL	0614.0	0724.0		12.0			
	3750	TYKW	5	S	0631.0	0631.4	1.0	6.0	2.0		
	9400	TYKW	5	S	0631.2	0631.4	.5	11.0	3.0		
	9100	GORK	2	S/F	0631.3	0631.4	.4	13.0			
	3100	CRIM	28	PRE	0749.0	0836.0	47.0	14.0	5.0		

SOLAR RADIO EMISSION
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MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
14	9400	TYKW	28 PRE	0750.0	0837	47.0	10.0	5.0		
	3750	TYKW	28 PRE	0750.0	0837	47.0	8.0	4.0		
	2000	TYKW	28 PRE	0800.0	0837	37.0	15.0	6.0		
	2963	YUNN	30 PBI	0800.0	0851	135.0				RIF 85.7
	2950	GORK	21 GRF	0801.2	0903.0	160.0E	50.0			
	33	UPIC	42 SER	0804.5		200.2				
	5200	BERN	20 GRF	0805.0	0848.6	180.0	114.0			ONLY PAPER REC
	3695	YUNN	30 PBI	0805.0	0851	11.5				RIF 61.7
	3200	BERN	20 GRF	0805.0	0848.6	180.0	.0			ONLY PAPER REC
	2695	LEAR	47 GB	0805.1	0849.1	76.2	190			
	1415	LEAR	47 GB	0807.1	0848.1	72.7	160			
	9100	GORK	21 GRF	0807.4	0851.4	238.0E	60.0			
	29	UPIC	42 SER	0807.6		196.2				
	4995	LEAR	47 GB	0807.8	0849.1	71.5	100			
	9375	YUNN	26 FAL	0809.0	0851	126.0				RIF 26.8
	228	HARS	47 GB	0829.0	0844.0	60.0	110.0D	10.0		
	808	ONDR	46 C	0830.0	0849.3	107.0	80.0D	26.0		
	410	LEAR	47 GB	0830.1	0858.1	48.0	1300			
	606	LEAR	47 GB	0830.6	0859.0	43.2	190			
	4995	ATHN	4 S/F	0830.6	0849.1	56.0D	81			
	536	ONDR		0831.0	0859		280.0			
	536	ONDR	48 C	0831.0	0856.5	59.0	332.0	76.0		
	536	ONDR		0831.0	0838.6		221.0			
	950	GORK	47 GB	0831.4	0849.1	51.9	113.0			
	650	GORK		0831.4	0846.2		60.0			
	650	GORK		0831.4	0900.3		65.0			
	650	GORK	46 C	0831.4	0839.0	58.0	60.0			
	2840	PEKG	46 C	0832.0	0848.8	66.0	185.0	48.0		
	1000	TYKW	45 C	0832.0	0850.4	28.0D	120.0	55.0D		
	200	HIRA	46 C	0832.0	0846	53.0D	110.0U	23.0U		WL,SUNSET
	930	BORD	45 C	0832.0	0849	54.0	81.0	2.0		
	11800	BERN	20 GRF	0832.0	0908.1	150.0	58.0			
	19600	BERN	20 GRF	0832.0	0902.6	150.0U	38.0			
	8400	BERN	20 GRF	0832.0	0848.7	150.0	99.0			ONLY PAPER REC
	100	HIRA	46 C	0832.4	0906.3	57.0	930.0U	170.0U		WL,SUNSET
	100	HIRA		0832.4	0845.6		520.0			WR
	810	KRAK	45 C	0832.5	0849.3	45.3	90.0	27.0		
	810	KRAK		0832.5	0853.5		50.0			
	810	KRAK		0832.5	0905.5		50.0			
	430	KRAK		0832.6	0858 U		780.0D			
	430	KRAK		0832.6	0850 U		780.0D			
	430	KRAK		0832.6	0843 U		780.0D			
	430	KRAK	49 GB	0832.6	0838 U	45.5	780.0D	80.0		
	260	ONDR	46 C	0833.0	0846.4	45.0	142.0	24.0		
	245	LEAR	47 GB	0833.0	0846.3	33.0	200			
	1415	ATHN	4 S/F	0833.1	0848.6	54.7D	180			
	10715	DWIN	25 R	0835.0		15.0	40.0			
	2650	DWIN	45 C	0835.0	0848	40.0	350.0	100.0		
	127	TORN	27 RF	0835.0	0845.7	41.0	100.0	20.0		
	500	HIRA	48 C	0835.7	0856.0	32.0	2000.0	200.0		SL
	3100	CRIM	47 GB	0836.0	0849.0	32.0	175.0	58.0		
	3100	CRIM		0836.0	0852.5		13.0			
	2000	TYKW	45 C	0837.0	0849.0	25.0D	180.0	80.0D		
	9400	TYKW	45 C	0837.0	0848.8	25.0D	76.0	40.0D		
	9395	PEKG	21 GRF	0837.0	0848.8	67.0	68.0	11.0		
	3750	TYKW	45 C	0837.0	0848.8	43.0D	125.0	40.0D		
	8800	LEAR	47 GB	0837.1	0848.6	36.0	83			
	2950	GORK	45 C	0837.2	0842.0	21.0	48.0			
	2950	GORK		0837.2	0854.7		60.0			
	2950	GORK		0837.2	0849.0		100.0			
	2695	ATHN	4 S/F	0837.3	0849.0	50.8D	150			
	204	IZMI	46 C	0838.0	0846.2	35.0	135.0	40.0		
	8800	ATHN	4 S/F	0840.6	0848.6	47.5	83			
	29	UPIC	46 C	0844.3	0845.8	8.7				
	33	UPIC	48 C	0844.5	0847.7	7.7				
	15400	LEAR	47 GB	0845.5	0848.8	7.6	29			
	9100	GORK	3 S	0847.1	0848.8	4.4	40.0	20.0		
	3100	CRIM	29 PBI	0858.0	0908.0	142.0D	51.0			
	810	KRAK	8 S	1020.7	1020.7	.1	9.0			
	930	BORD	41 F	1048.6	1050	2.0	46.0	4.0		
	950	GORK	3 S	1048.8	1050.0	1.7	31.0	15.0		
	650	GORK	1 S	1048.9	1050.2	2.0	2.0			
	950	GORK	3 S	1119.1	1122.4	6.3	18.0	9.0		
	930	BORD	45 C	1121.3	1122.3	2.7	17.0	3.0		
	810	KRAK	2 S/F	1121.5	1122.5	2.5	20.0	4.0		
	650	GORK	1 S	1121.8	1122.3	4.9	5.0	2.5		
	2800	OTTA	20 GRF	1135.0	1145	25.0	4.6	2.3		
	2800	OTTA	22 GRF	1250.0	1430	153.0	7.2			
	5200	BERN	3 S	1418.5	1422.2	40.0	16.0			ONLY PAPER REC
	8400	BERN	3 S	1419.0	1422.3	34.0	40.0			
	11800	BERN	3 S	1419.0	1422.1	34.0	34.0			
	7000	SAOP	3 S	1421.4	1422.5	34.2	31.0	10.0		29L
	4995	ATHN	4 S/F	1421.6	1422.3	4.9D	16			
	8800	ATHN	4 S/F	1421.6	1422.3	5.9	38			
	10715	DWIN	1 S	1422.0	1422.5	1.0	25.0	15.0		

SOLAR RADIO EMISSION
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MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
14	2800	OTTA	21 GRF	1800.0	2015	250.0	11.2	3.8		
	7000	SAOP	45 C	1933.1	1934.4	4.3	32.0	16.0		9L
	8800	PALE	8 S	1934.0	1934.3	1.1	54			
	15400	PALE	8 S	1934.1	1934.5	1.7	34			
	245	PALE	8 S	2014.8	2015.1	.7	290			
	3750	TYKW	45 C	2121.0	2127.2	10.0	14.0	7.0		
	9400	TYKW	20 GRF	2121.0	2133	50.0	6.0	3.0		
	2800	OTTA	21 GRF	2122.0	2124	38.0	4.6	2.4		
	2000	TYKW	5 S	2126.0	2127.7	7.0	3.0	1.0		
	2800	OTTA	2 S/F	2126.5	2126.5	1.5	4.2	2.1		
	3750	TYKW	30 PBI	2131.0		60.0	7.0	3.0		
	3750	TYKW	5 S	2142.0	2148	20.0	3.0	1.0		
	245	PALE	8 S	2303.8	2303.8	.3	83			
	3750	TYKW	5 S	2351.0	2353.2	9.0D	5.0	2.0D		
15	410	LEAR	43 NS	0602.3	0611.0	12.7	01			
	245	LEAR	43 NS	0606.0	0608.0	8.3	01			
	260	ONDR	44 NS	0630.0E		450.0D	158.0			
	127	TORN	43 NS	0932.0	1259.8	388.0D	900.0	3.0		V2
	200	HIRA	44 NS	1930.0E	0043	410.0D	55.0	20.0		MR
	208	VORO	44 NS	2100.0E		360.0D		15.0		
	245	LEAR	43 NS	2306.0	0001.8	628.0D	98			
	9400	TYKW	5 S	0030.0	0030.4	1.0	10.0	4.0		
	3750	TYKW	5 S	0030.0	0030.4	1.0	5.0	1.5		
	4995	LEAR	8 S	0030.1	0030.3	.4	17			
	8800	LEAR	8 S	0030.1	0030.5	.7	17			
	2000	TYKW	20 GRF	0035.0	0120	110.0	2.0	1.0		
	3750	TYKW	20 GRF	0050.0	0115	50.0	2.0	1.0		
	245	LEAR	8 S	0132.0	0132.6	.8	34			
	3750	TYKW	20 GRF	0200.0	0211	40.0	4.0	1.5		
	9375	YUNN	20 GRF	0300.0	0320	31.0				RIF 10.7
	2963	YUNN	20 GRF	0400.0	0421	55.0				RIF 7.1
	3695	YUNN	20 GRF	0401.0	0418	29.0				RIF 10.6
	3750	TYKW	28 PRE	0402.0	0411	11.0	3.0	1.5		
	2950	GORK	20 GRF	0412.8	0417.5	18.8	10.5			
	2840	PEKG	45 C	0413.0	0416.2	21.2	13.3	6.1		
	3750	TYKW	45 C	0413.0	0416.0	7.0	13.0	7.0		
	2000	TYKW	45 C	0413.0	0418.1	6.0	15.0	6.0		
	2695	LEAR	8 S	0415.6	0416.1	.2	13			
	4995	LEAR	8 S	0416.0	0416.1	.1	11			
	2000	TYKW	29 PBI	0419.0		25.0	5.0	2.0		
	3750	TYKW	29 PBI	0420.0		20.0	6.0	2.5		
	3750	TYKW	28 PRE	0518.0	0523	5.0	4.0	2.0		
	245	LEAR	8 S	0518.8	0520.0	1.3	93			
	410	LEAR	8 S	0519.8	0520.0	.3	11			
	100	HIRA	8 S	0520.0	0520.1	.6	540.0			WR
	2950	GORK	21 GRF	0521.5	0524.9	16.2	8.5			
	2840	PEKG	45 C	0522.0	0524	14.0	16.0	4.0		
	2695	ATHN	4 S/F	0522.1	0523.0	5.5D	15			
	4995	ATHN	4 S/F	0522.6	0523.8	6.2	11			
	9100	GORK	1 S	0523.0	0524 U	1.5	5.4	2.5		
	9400	TYKW	5 S	0523.0	0538	1.5	5.0	2.0		
	2000	TYKW	45 C	0523.0	0523.9	5.0	7.0	1.5		
	3750	TYKW	45 C	0523.0	0523.9	5.0	16.0	7.0		
	2950	GORK	1 S	0523.1	0524.0	1.3	9.5			
	2695	LEAR	8 S	0523.1	0523.8	1.2	11			
	8800	LEAR	8 S	0523.1	0523.8	1.2	08			
	4995	LEAR	8 S	0523.1	0523.8	1.2	18			
	3100	CRIM	1 S	0524.0	0524.5	2.0	12.0	4.0		
	3750	TYKW	29 PBI	0528.0		20.0	4.0	2.0		
	606	LEAR	8 S	0540.6	0540.8	.5	18			
	9375	YUNN	30 PBI	0602.0	0610	28.0				RIF 13.4
	606	LEAR	4 S/F	0602.8	0621.6	20.3	69			
	204	IZMI	41 F	0620.0	0621.5	3.0	150.0			
	245	LEAR	4 S/F	0620.1	0621.3	3.0	280			
	100	HIRA	46 C	0620.3	0621.6	3.6	16000.0	790.0		WR
	2950	GORK	1 S	0620.5	0621.4	1.7	7.5			
	9100	GORK	2 S	0620.5	0621.4	3.3	20.0			
	200	HIRA	46 C	0620.6	0621.5	3.2	600.0	46.0		WR
	33	UPIC	42 SER	0620.6	0858.6	197.6				
	245	LEAR	8 S	0620.6	0621.3	1.0	280			
	3750	TYKW	45 C	0620.7	0621.4	1.5	11.0	2.0		
	29	UPIC	42 SER	0620.7		197.1				
	2000	TYKW	45 C	0621.0	0621.4	1.0	4.5	2.0		
	1000	TYKW	42 SER	0621.0	0621.7	3.0	5.0	1.0		
	9400	TYKW	5 S	0621.0	0621.4	1.0	17.0	4.0		
	3100	CRIM	1 S	0621.0	0621.3	1.0	8.0	3.0		
	2695	LEAR	8 S	0621.1	0621.3	1.0	10			
	8800	LEAR	8 S	0621.1	0621.5	1.0	30			
	4995	LEAR	8 S	0621.1	0621.3	1.0	20			
	15400	LEAR	8 S	0621.1	0621.6	1.0	08			
	650	GORK	46 C	0621.3	0621.5	2.0	36.0			
	950	GORK	2 S/F	0621.3	0621.8	2.1	18.0			
	650	GORK		0621.3	0622.9		36.0			
	930	BORD	41 F	0650.2	0650.6	.6	29.0	2.0		

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
15	410	LEAR	8 S	0727.3	0727.5	.7	18			
	3695	YUNN	29 PBI	0734.0	0741	31.0				RIF 23.6
	3200	BERN	3 S	0736.7	0739.0	25.0	.0			ONLY PAPER REC
	8400	BERN	3 S	0736.7	0738.6	20.0	50.0			ONLY PAPER REC
	5200	BERN	3 S	0736.7	0739.0	40.0	129.0			ONLY PAPER REC
	11800	BERN	3 S	0737.0	0739.0	20.0	21.0			
	9375	YUNN	29 PBI	0737.0	0741	20.0				RIF 7.6
	5730	IRKU	20 GRF	0737.0	0739.1	4.0	95.0			R
	2840	PEKG	3 S	0737.0	0739.2	20.0	18.0	5.0		
	3750	TYKW	45 C	0737.0	0739.2	40.0	45.0	12.0		
	2950	GORK	21 GRF	0737.3	0742.0	39.2	8.5			
	9100	GORK	21 GRF	0737.4	0800 U	203.0E	15.0			
	9400	TYKW	45 C	0737.5	0738.7	40.0	24.0	7.0		
	9395	PEKG	3 S	0737.5	0739.2	19.5	22.0	6.3		
	3100	CRIM	3 S	0737.5	0739.3	3.0	22.0	7.0		
	9100	GORK	2 S/F	0737.7	0739.0	28.0	26.0			
	2950	GORK	3 S	0737.9	0739.2	2.8	13.5			
	2650	DWIN	1 S	0738.0	0739	2.0	10.0	5.0		
	2963	YUNN	29 PBI	0738.0	0742	15.0				RIF 8.8
	2000	TYKW	5 S	0738.5	0739.2	1.5	3.0	1.0		
	3100	CRIM	29 PBI	0740.5	0741.0	140.0	9.0	3.0		
	9395	PEKG	3 S	0757.0	0758.6	11.0	11.0	5.0		
	9100	GORK	1 S	0758.5	0758.8	.9	6.7	3.0		
	536	ONDR	41 F	0805.0	0826.6	50.0	27.0	4.0		
	245	LEAR	4 S/F	0825.1	0826.5	292.4	19			
	606	LEAR	8 S	0825.8	0826.5	1.0	15			
	410	LEAR	8 S	0826.0	0827.0	1.3	21			
	430	KRAK	42 SER	0826.0	0827.0	36.2	110.0			
	430	KRAK		0826.0	0830.2		130.0			
	810	KRAK	8 S	0826.0	0826.0	.2	15.0			
	650	GORK	2 S/F	0826.0	0826.4	1.2	14.0	3.0		
	650	GORK	2 S/F	0826.0	0826.4	1.2	14.0	3.0		
	430	KRAK		0826.0	0856.6		270.0			
	2000	TYKW	20 GRF	0830.0	0835 U	30.0U	7.0U	3.0U		
	3750	TYKW	5 S	0830.0	0835 U	20.0U	6.0U	3.0U		
	2950	GORK	20 GRF	0831.4	0835.3	17.5	8.5			
	650	GORK		0831.5	0836.5		14.0			
	650	GORK	46 C	0831.5	0832.0	7.2	9.0			
	3100	CRIM	20 GRF	0832.0	0835.0	17.0	7.0	2.0		
	2840	PEKG	1 S	0832.0	0835	18.0	9.0	5.0		
	606	LEAR	4 S/F	0832.0	0836.5	4.8	22			
	410	LEAR	4 S/F	0832.0	0833.5	4.8	139			
	1415	LEAR	4 S/F	0832.8	0834.8	5.0	20			
	1000	TYKW	42 SER	0833.0	0838.3	25.0	19.0	2.0		
	9395	PEKG	5 S	0835.0	0835.5	3.0	13.0	5.0		
	930	BORD	41 F	0835.0	0836.4	5.0	12.0	2.0		
	245	LEAR	4 S/F	0857.6	0858.8	3.2	480			
	204	IZMI	41 F	0858.0	0859.0	5.0	190.0			
	245	LEAR	8 S	0858.6	0858.8	1.5	480			
	606	LEAR	8 S	0859.8	0900.0	1.0	30			
	410	LEAR	8 S	0859.8	0900.0	1.0	55			
	245	LEAR	8 S	0902.3	0902.6	.5	46			
	204	IZMI	41 F	0935.0	0935.0	1.2	50.0			
	9100	GORK	2 S/F	1041.0	1041.8	1.5	8.0	4.0		
	9100	GORK	8 S	1047.1	1047.1	.3	50.0	26.0		
	2800	OTTA	20 GRF	1145.0	1350	340.0	15.6	7.8		
	127	TORN	2 S/F	1159.0	1200.2	2.0	20.0	10.0		
	430	KRAK	8 S	1200.3	1200.4	.8	500.0			
	127	TORN	4 S/F	1203.4	1204.5	2.0	230.0	110.0		
	930	BORD	41 F	1302.0	1305.6	5.2	32.0	2.0		
	930	BORD	41 F	1425.4	1425.6	.3	82.0	2.0		
	930	BORD	41 F	1550.0	1550.1	.2	40.0	2.0		
	2800	OTTA	20 GRF	1735.0	1810	55.0	2.4	1.2		
	7000	SAOP	27 RF	1800.3		6.6	11.0	5.0		21L
	7000	SAOP	45 C	1828.8	1829.9	9.0	35.0	17.5		8L
	2800	OTTA	21 GRF	1832.0	1947	190.0	4.8	2.4		
	2800	OTTA	3 S	1853.3	1854.7	7.0	69.0	18.0		
	2695	PALE	4 S/F	1853.3	1854.6	3.5	80			
	7000	SAOP	3 S	1853.3	1854.6	7.0	39.0	20.0		26R
	8800	PALE	4 S/F	1853.6	1854.6	6.0	20			
	1415	PALE	4 S/F	1853.6	1854.6	2.5	51			
	4995	PALE	8 S	1854.0	1854.6	1.1	38			
	9400	TYKW	45 C	2142.0	2142.5	2.0	8.0	2.0		
	3750	TYKW	5 S	2218.0	2220.8	5.0	11.0	4.0		
	2000	TYKW	5 S	2218.0	2220.8	4.0	6.0	2.0		
	2800	OTTA	21 GRF	2218.0	2300	70.0	3.4	2.0		
	2800	OTTA	1 S	2219.5	2220.8	2.5	7.8	2.6		
	9400	TYKW	20 GRF	2220.0	2223	6.0	3.0	1.5		
	2000	TYKW	30 PBI	2222.0		70.0	2.0	1.0		
	3750	TYKW	30 PBI	2223.0		70.0	4.0	2.0		
	2000	TYKW	5 S	2232.0	2234	6.0	2.0	1.0		
	3750	TYKW	5 S	2232.0	2233.4	6.0	3.0	1.0		
	2800	OTTA	1 S	2232.0	2233	5.0	3.4	1.8		
	245	PALE	8 S	2339.3	2339.6	.5	48			
	3750	TYKW	28 PRE	2342.0	2353.6	39.0	14.0	7.0		

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
15	9400	TYKW	28 PRE	2349.0	2351.5	32.5	7.0	3.5		
	245	PALE	8 S	2352.3	2352.5	.3	94			
16	260	ONDR	44 NS	0548.0E		507.0D	34.0	2.0		
	127	TORN	43 NS	0000.0	1009.2	480.0D	1800.0	110.0		V1
	208	VORO	44 NS	2100.0E		360.0D		25.0		
	410	LEAR	43 NS	2307.0	2350.1	626.0D	23			
	245	LEAR	43 NS	2307.0	0556.1	626.0D	36			
	200	HIRA	44 NS	2330.0E	0121	600.0D	45.0	30.0		WR
	2695	PENT	21 GRF	0000.0		60.0	7.4			
	245	PALE	8 S	0001.8	0001.8	.3	139			
	2000	TYKW	21 GRF	0002.0	0012	75.0	6.0	2.5		
	1000	TYKW	45 C	0009.6	0009.9	4.0	7.0	1.0		
	3750	TYKW	5 S	0021.0	0023.3	6.0	42.0	20.0		
	9400	TYKW	5 S	0021.5	0023.2	3.5	93.0	35.0		
	5730	IRKU		0021.6	0025.5	16.0	32.0			R
	5730	IRKU	21 GRF	0021.6	0023.2	4.0	120.0			R
	2695	PALE	4 S/F	0021.6	0023.3	6.4	13			
	4995	LEAR	4 S/F	0021.8	0023.1	9.7	82			
	8800	LEAR	4 S/F	0021.8	0023.1	13.7	130			
	4995	PALE	4 S/F	0021.8	0023.3	9.7	76			
	2695	PENT	1 S	0022.0	0023.5	2.0	7.4	4.0		
	15400	PALE	4 S/F	0022.0	0023.1	9.0	23			
	8800	PALE	8 S	0022.1	0023.1	1.7	119			
	15400	LEAR	8 S	0023.0	0025.1	.3	21			
	2695	LEAR	8 S	0023.1	0023.3	.2	13			
	9400	TYKW	30 PBI	0025.0		60.0	15.0	7.0		
	3750	TYKW	30 PBI	0027.0		55.0	16.0	7.0		
	9400	TYKW	5 S	0028.0	0028.8	2.0	3.0	1.0		
	3750	TYKW	45 C	0033.0	0037.4	15.0	16.0	5.0		
	2000	TYKW	45 C	0034.0	0035.2	5.0	4.0	1.0		
	4995	LEAR	4 S/F	0034.6	0037.5	3.5	24			
	2695	LEAR	4 S/F	0034.8	0036.8	4.0	16			
	2695	PENT	45 C	0035.0	0036.5	3.0	3.6			
	1000	TYKW	42 SER	0101.0	0103.8	4.0	6.0	1.0		
	2000	TYKW	45 C	0103.2	0103.8	1.5	2.0	.5		
	2000	TYKW	21 GRF	0130.0	0150	7.0	1.5	.7		
	3750	TYKW	21 GRF	0138.0	0140.7	72.0	4.0	1.5		
	9400	TYKW	5 S	0210.0	0210.9	4.0	440.0	65.0		
	9395	PEKG	3 S	0210.0	0210.7	15.0	477.0	13.0		
	3750	TYKW	5 S	0210.0	0210.9	3.0	19.0	5.0		
	35000	NAGO	5 S	0210.0	0210	1.0	83.0			
	8800	PALE	47 GB	0210.3	0210.8	2.5	580			
	8800	MANI	4 S/F	0210.3	0211.1	3.7	490			
	4995	PALE	4 S/F	0210.3	0210.8	2.5	66			
	17000	NOBE	3 S	0210.4	0210.9	1.1	478.0			L
	5730	IRKU	2 S	0210.5	0211.5	2.0	75.0			R
	15400	PALE	47 GB	0210.5	0210.8	2.3	610			
	4995	MANI	4 S/F	0210.6	0211.1	3.4D	56			
	9375	YUNN	1 S	0211.0	0212	3.0				RIF 112.5
	3695	YUNN	1 S	0211.0	0212	2.0				RIF 8.2
	2840	PEKG	1 S	0211.0	0211.0	2.0	6.0	2.0		
	17000	NOBE	29 PBI	0211.5	0211.6	15.0	27.0			L
	2963	YUNN	1 S	0212.0	0212	1.0				RIF 1.9
	3750	TYKW	29 PBI	0213.0		6.0	2.0	.7		
	9400	TYKW	29 PBI	0214.0		15.0	6.0	2.0		
	606	LEAR	4 S/F	0224.8	0227.6	6.0	59			
	410	LEAR	4 S/F	0224.8	0227.8	4.0	32			
	1000	TYKW	42 SER	0227.0	0228.7	6.0	40.0	2.0		
	2000	TYKW	42 SER	0227.0	0228.7	6.0	8.0	.5		
	410	PALE	8 S	0227.1	0227.8	1.7	48			
	1415	PALE	8 S	0227.1	0228.6	2.0	20			
	1415	LEAR	8 S	0227.1	0228.6	2.0	17			
	606	PALE	8 S	0227.5	0227.6	.1	58			
	3750	TYKW	5 S	0241.0	0241.3	1.0	1.5	.5		
	9400	TYKW	5 S	0241.0	0241.3	1.0	20.0	7.0		
	9400	TYKW	29 PBI	0242.0		7.0	2.0	1.0		
	9375	YUNN	20 GRF	0302.0	0309	14.0				RIF 9.4
	3750	TYKW	5 S	0324.0	0325.2	2.0	3.0	1.0		
	2000	TYKW	21 GRF	0330.0	0405	13.0	3.0	1.5		
	8800	ATHN	4 S/F	0403.0	0404.0	2.5	22			
	2695	ATHN	4 S/F	0403.1	0404.1	2.2D	09			
	4995	ATHN	4 S/F	0403.1	0404.1	2.4D	13			
	1415	ATHN	8 S	0403.1	0404.1	1.7D	07			
	2950	GONK	1 S	0415.4	0416.7	2.6	6.0	3.0		
	3750	TYKW	5 S	0416.0	0417	5.0	2.0	1.0		
	2000	TYKW	45 C	0416.0	0417.2	5.0	6.0	1.5		
	9400	TYKW	45 C	0442.4	0442.6	1.0	5.0	1.5		
	9100	GORK	1 S	0442.5	0442.7	.0	5.4	2.5		
	8400	BERN	3 S	0551.1	0552.1	10.0U	56.0			
	11800	BERN	3 S	0551.2	0552.1	10.0U	27.0			
	5200	BERN	3 S	0551.2	0552.0	10.0	34.0			ONLY PAPER REC
	9400	TYKW	5 S	0551.5	0552.1	1.5	36.0	9.0		
	9100	GORK	3 S	0551.5	0552.5	4.3	39.0	15.0		
	5730	IRKU	1 S	0551.6	0552.2	3.0	50.0			R

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DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
16	3750	TYKW	5 S	0552.0	0552.2	1.0	9.0	3.0		
	4995	LEAR	8 S	0552.0	0552.1	.3	33			
	8800	LEAR	8 S	0552.0	0552.1	.1	47			
	9375	YUNN	2 S/F	0553.0	0554	2.0				RIF 9.4
	9400	TYKW	29 PBI	0553.0		5.0	3.0	1.5		
	2000	TYKW	28 PRE	0650.0	0811	82.0	14.0	2.5		
	3750	TYKW	5 S	0653.0	0655.5	15.0	3.0	1.0		
	3100	CRIM	20 GRF	0653.8	0655.0	6.0	4.0	1.0		
	3695	YUNN	48 C	0722.0	0841	158.0				RIF 598.9
	6100	KISV	28 PRE	0742.0	0757	15.0	5.0			
	9400	TYKW	28 PRE	0745.0	0814.8	31.0	30.0	6.0		
	9100	GORK	21 GRF	0745.6		126.0E				
	2950	GORK	21 GRF	0750.0		120.0E				
	3750	TYKW	28 PRE	0750.0	0809.2	20.0	12.0	5.0		
	2963	YUNN	48 C	0750.0	0841	188.0				RIF 590
	6100	KISV	8 S	0757.0	0759	3.0	8.0			
	5730	IRKU		0806.0	0834.7		606.0			R
	5730	IRKU		0806.0	0839.1		1795.0			R
	5730	IRKU	49 GB	0806.0	0818.0	32.0	90.0			R
	1000	TYKW	28 PRE	0806.0	0809.1	6.0	9.0	1.0		
	5730	IRKU		0806.0	0825.8		303.0			R
	3200	BERN	47 GB	0807.1	0839.0	250.0	.0			ONLY PAPER REC
	5200	BERN	47 GB	0807.1	0839.0	250.0	1150.0D			ONLY PAPER REC
	2840	PEKG	47 GB	0808.0	0839	114.0	1916.0	703.0		
	930	BORD	28 PRE	0808.5	0819.5	26.5	349.0	75.0		
	808	ONDR	49 GB	0808.5		149.0	85.0D	52.0		
	3100	CRIM	47 GB	0809.0		70.0	447.0D			
	2950	GORK		0809.8	0847.8		1000.0			
	950	GORK		0809.8	0900.3		2500.0			
	950	GORK	46 C	0809.8	0819.4	99.0D	330.0			
	2950	GORK	46 C	0809.8	0839.1	52.2	1400.0			
	950	GORK		0809.8	0848.0		1400.0			
	950	GORK		0809.8	0854.6		1700.0			
	6100	KISV		0810.0	0825		260.0			
	2650	DWIN	49 GB	0810.0		110.0	470.0D			
	3750	TYKW	47 GB	0810.0	0839.1	70.0D	1650.0	400.0D		
	6100	KISV	46 C	0810.0	0838	65.0	600.0			
	4995	LEAR	49 GB	0810.1	0838.0	83.9D	2200			
	2695	LEAR	49 GB	0810.6	0839.3	83.4D	1399			
	810	KRAK		0811.5	0913.3		1100.0			
	810	KRAK		0811.5	0847.7		1100.0U			
	810	KRAK	49 GB	0811.5	0819.9	110.0	510.0	330.0		
	810	KRAK		0811.5	0857.8		1600.0U			
	430	KRAK		0811.6	0833.5		760.0D			
	430	KRAK	49 GB	0811.6	0819.7	129.0D	500.0	400.0U		
	430	KRAK		0811.6	0836.4		1500.0U			
	430	KRAK		0811.6	0912.2		1100.0U			
	1415	LEAR	49 GB	0811.6	0854.0	82.4D	1000			
	1000	TYKW	47 GB	0812.0	0900.4	52.0D	3600.0	650.0D		
	2000	TYKW	47 GB	0812.0	0839.5	62.0D	950.0	350.0D		
	650	GORK		0812.3	0914.3		1950.0			
	650	GORK		0812.3	0942.0		1240.0			
	650	GORK	47 GB	0812.3	0857.9	99.0D	1240.0			
	650	GORK		0812.3	0929.5		2450.0			
	606	LEAR	49 GB	0812.6	0914.3	81.4D	2800			
	536	ONDR		0812.7	0838.4		312.0			
	536	ONDR		0812.7	0820		280.0			
	536	ONDR	49 GB	0812.7	0914.5	132.0	396.0	156.0		
	536	ONDR		0812.7	0941.8		332.0			
	418	LEAR	49 GB	0812.8	0840.0	81.2D	1300			
	11800	BERN	47 GB	0813.0	0839.0	210.0U	1400.0			
	19600	BERN	47 GB	0813.0	0839.0	186.0U	830.0			
	35000	BERN	47 GB	0813.0	0839.8	100.0U	422.0			
	8400	BERN	47 GB	0813.0	0839.0	210.0U	1955.0			
	8800	LEAR	49 GB	0813.0	0838.0	78.5	2100			
	260	ONDR	49 GB	0813.0E		152.0	209.0D	95.0		
	204	IZMI	45 C	0813.5	0838.0	70.5	1235.0	680.0		
	9100	GORK	46 C	0813.6	0824.9	51.0	235.0			
	9100	GORK		0813.6	0839.0		1580.0			
	245	LEAR	49 GB	0813.8	0842.5	80.2D	2000			
	9375	YUNN	48 C	0814.0	0841	168.0				RIF 486.9
	9395	PEKG	47 GB	0814.0	0839	130.0	1703.2	228.0		
	228	HARS	49 GB	0814.4	0842.1	150.0	800.0	150.0		
	10715	DWIN	49 GB	0815.0	0839	85.0	1050.0	50.0		
	200	HIRA		0815.8	0817.8		180.0			O
	200	HIRA	48 C	0815.8	0841.6	75.0D	1340.0	370.0U		MR,SUNSET
	9400	TYKW	47 GB	0816.0	0839.2	48.0D	1490.0	400.0D		
	204	IZMI	47 GB	0816.5	0840.8	48.0	700.0	370.0		
	15400	LEAR	49 GB	0816.8	0838.0	63.7	880			
	127	TORN	45 C	0819.3	0820.0	5.0	160.0	60.0		
	100	HIRA	48 C	0819.6	0901	74.0D	2300.0	670.0U		WR,SUNSET
	33	UPIC	49 GB	0824.7	0829.6	19.6				
	29	UPIC	49 GB	0825.0	0831.1	21.2				
	930	BORD	47 GB	0835.0	0959.7	54.0	2639.0	620.0		
	930	BORD		0835.0	0854.6		1660.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
16	930	BORD		0835.0	0848		1411.0			
	930	BORD		0835.0	0914		872.0			
	33	UPIC	29 PBI	0844.3	0921.3	126.7				
	29	UPIC	29 PBI	0846.2	0942.9	125.6				
	5730	IRKU	29 PBI	0850.0		70.0D	567.0			R
	204	IZMI	25 R	0904.5	0943.5	71.0	350.0	150.0		
	6100	KISV	29 PBI	0915.0	0915	210.0	100.0			
	930	BORD	29 PBI	0924.0	0932	72.0	191.0	21.0		
	3100	CRIM	20 GRF	0941.0	0948.0	75.0D	40.0			
	204	IZMI	20 GRF	1025.0	1036.0	240.0	330.0	140.0		
	3100	CRIM	20 GRF	1044.0	1055.0	11.0	7.0	2.0		
	536	ONDR	41 F	1227.0	1234.8	12.0	40.0	21.0		
	430	KRAK	45 C	1227.5	1232.0	17.5	110.0	34.0		
	810	KRAK	8 S	1257.0	1257.0	.2	19.0			
	7000	SAOP	3 S	1317.5	1319.6	6.6	17.0	8.0		12L
	6100	KISV	4 S/F	1319.0	1319.8	1.0	5.0			
	127	TORN	7 C	1424.5	1425.2	1.5	360.0D	180.0D		
	2800	OTTA	8 S	1424.9	1424.9	.2	4.8			
	930	BORD	41 F	1715.8	1715.8	.3	23.0	2.0		
	2800	OTTA	240 R	2020.0	2100	40.0	3.4	1.8		
	2800	OTTA	21 GRF	2205.0	2220	60.0	2.6	1.3		
	3750	TYKW	20 GRF	2209.0	2220	35.0	2.0	1.0		
	2000	TYKW	21 GRF	2209.0	2220	35.0	1.5	.7		
	9400	TYKW	5 S	2212.5	2213.0	1.5	3.0	1.0		
	2000	TYKW	5 S	2224.5	2225.0	1.5	1.5	.5		
	9400	TYKW	5 S	2229.0	2229.8	2.0	4.0	1.5		
	1000	TYKW	5 S	2247.0	2247.8	1.5	4.0	1.0		
	2000	TYKW	5 S	2247.0	2247.8	1.5	4.0	1.0		
	3750	TYKW	5 S	2247.0	2247.8	4.0	13.0	3.0		
	9400	TYKW	5 S	2247.0	2247.7	2.0	4.0	1.0		
	2800	OTTA	1 S	2247.5	2248	1.2	7.4	3.7		
	9400	TYKW	5 S	2301.2	2301.5	1.0	4.0	1.5		
	9400	TYKW	5 S	2314.0	2317	6.0	2.0	1.0		
	3750	TYKW	45 C	2314.0	2315.3	10.0	6.0	2.5		
17	260	ONDR	44 NS	0550.0E		450.0D	67.0	6.0		
	127	TORN	44 NS	0600.0E	1141.7	600.0D	650.0	12.0		V1,DISTURBED
	245	SGMR	43 NS	0924.0	1217.1	516.0D	51			
	410	SGMR	43 NS	0924.0	1217.1	516.0D	29			
	245	PALE	43 NS	1728.0E	2130.1	679.0D	130			
	208	VORO	44 NS	2100.0E		360.0D		29.0		
	245	LEAR	43 NS	2307.0	0252.1	626.0D	38			
	100	HIRA	44 NS	2330.0E	0211	600.0D	30.0	10.0		WR
	2695	PENT	21 GRF	0100.0	0120	40.0D	4.6			
	3750	TYKW	21 GRF	0100.0	0127	95.0	4.0	1.5		
	2000	TYKW	21 GRF	0105.0	0127	90.0	4.0	1.5		
	9400	TYKW	21 GRF	0105.0	0130	85.0	4.0	2.0		
	2000	TYKW	5 S	0106.0	0111.8	15.0	7.0	2.0		
	3750	TYKW	45 C	0107.0	0111.9	15.0	11.0	3.0		
	3695	YUNN	20 GRF	0107.0	0114	33.0				RIF 9.5
	2695	PENT	3 S	0108.0	0112	7.0	13.6	6.0		
	2840	PEKG	1 S	0108.7	0112	8.3	9.4	4.3		
	9400	TYKW	5 S	0110.0	0112	4.0	2.5	1.0		
	2963	YUNN	20 GRF	0110.0	0114	30.0				RIF 5.8
	3750	TYKW	5 S	0210.0	0220	20.0	3.0	1.5		
	3695	YUNN	2 S/F	0332.0	0345	21.0				RIF 13.2
	2963	YUNN	2 S/F	0334.0	0345	19.0				RIF 6.8
	2695	LEAR	4 S/F	0342.6	0343.3	2.9	11			
	4995	LEAR	4 S/F	0342.8	0343.3	2.7	18			
	8800	LEAR	4 S/F	0342.8	0343.3	2.7	08			
	9100	GORK	1 S	0342.9	0343.4	4.7	9.4	4.0		
	3750	TYKW	5 S	0343.0	0343.3	2.0	20.0	8.0		
	9400	TYKW	5 S	0343.0	0343.3	1.0	6.0	2.0		
	2950	GORK	1 S	0343.0	0343.4	2.0	12.0	6.0		
	2840	PEKG	1 S	0343.0	0343.4	2.8	7.4	3.0		
	2000	TYKW	5 S	0343.0	0343.4	2.0	3.0	1.0		
	3750	TYKW	29 PBI	0345.0		65.0	2.0	1.0		
	6100	KISV	1 S	0454.0	0455.6	4.0	3.0			
	9100	GORK	1 S	0454.8	0455.6	1.7	4.0	2.0		
	33	UPIC	42 SER	0552.6	0744	112.7				
	245	LEAR	8 S	0552.8	0553.0	.3	119			
	29	UPIC	42 SER	0552.8	0743.5	112.5				
	410	LEAR	8 S	0552.8	0553.0	.3	56			
	1415	LEAR	8 S	0600.8	0601.1	.3	41			
	1415	LEAR	8 S	0602.1	0602.3	.2	61			
	1415	LEAR	8 S	0608.3	0608.5	.3	53			
	1000	TYKW	5 S	0614.0	0614.4	.5	9.0	3.0		
	1415	LEAR	8 S	0639.5	0639.6	.1	370			
	2950	GORK	20 GRF	0643.7	0648.1	36.8	6.0	3.0		
	810	KRAK	8 S	0909.2	0909.2	.2	13.0			
	430	KRAK	8 S	0909.5	0909.5	.3	38.0			
	810	KRAK	8 S	1132.6	1132.6	.2	33.0			
	2800	OTTA	20 GRF	1244.0	1249	60.0	6.2	2.8		
	2800	OTTA	20 GRF	1600.0	1615	50.0	2.8			
	930	BORD	8 S	1820.1	1820.2	.2	28.0	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
17	2800	OTTA	20 GRF	1935.0	1946	75.0	11.8	4.0		
	2800	OTTA	23 GRF	2120.0	2130	65.0	9.0			
	2800	OTTA	45 C	2128.5	2130	6.0	14.2	4.7		
18	33	UPIC	43 NS	0524.8	0844.8	676.7D				
	29	UPIC	43 NS	0524.8		545.2D				
	260	ONDR	44 NS	0610.0E		483.0D	27.0			
	127	TORN	44 NS	0850.0E	0738.9	160.0D	80.0	1.0		V1
	245	SGMR	43 NS	0923.0	1100.3	517.0D	33			
	245	PALE	43 NS	1640.0	2045.8	716.0D	480			
	200	HIRA	44 NS	1928.0E	0714	850.0D	25.0	10.0		MR
	208	VORO	44 NS	2100.0E		360.0D		12.0		
	245	LEAR	43 NS	2308.0	0218.6	624.0D	100			
	15400	LEAR	4 S/F	0016.6	0022.1	8.4	11			
	4995	LEAR	4 S/F	0016.8	0018.8	8.2	43			
	8800	LEAR	4 S/F	0017.3	0022.1	5.7	13			
	2695	LEAR	4 S/F	0017.3	0017.8	6.7	09			
	1415	LEAR	4 S/F	0017.6	0019.3	7.5	06			
	410	LEAR	47 GB	0017.6	0018.6	6.2	77			
	606	LEAR	4 S/F	0017.6	0019.5	7.5	80			
	245	LEAR	47 GB	0017.6	0020.8	5.0	110			
	500	HIRA	46 C	0018.1	0018.5	2.7	57.0	20.0		WR
	606	LEAR	8 S	0018.3	0019.5	1.5	80			
	410	LEAR	47 GB	0018.3	0018.6	3.5	77			
	245	LEAR	47 GB	0019.1	0020.8	3.5	110			
	8800	LEAR	8 S	0021.8	0022.1	.2	13			
	410	LEAR	4 S/F	0031.1	0032.8	2.9	11			
	245	LEAR	4 S/F	0031.3	0032.1	4.3	52			
	245	PALE	8 S	0031.5	0032.0	.6	64			
	606	LEAR	4 S/F	0031.6	0032.8	2.5	22			
	1415	LEAR	4 S/F	0032.0	0032.8	2.1	17			
	3750	TYKW	20 GRF	0640.0	0655	40.0	3.0	1.5		
	6100	KISV	1 S	0721.4	0721.9	1.5	2.0			
	9375	YUNN	7 C	0733.0	0734	4.0				RIF 8
	9375	YUNN	7 C	0741.0	0744	4.0				RIF 10
	3750	TYKW	20 GRF	0800.0	0830	70.0	4.0	2.0		
	9400	TYKW	20 GRF	0800.0	0830	40.0D	5.0	3.0D		
	2000	TYKW	21 GRF	0800.0	0830	70.0	4.0	2.5		
	2950	GORK	20 GRF	0800.4	0844.5	119.2	9.0	4.5		
	650	GORK		0800.9	0842.9		690.0			
	650	GORK		0800.9	0834.1		720.0			
	650	GORK	47 GB	0800.9	0818.1	65.1	1030.0			
	1000	TYKW	45 C	0801.0	0818.1	50.0	195.0	18.0		
	808	ONDR	48 C	0801.0		49.0	85.0D	28.0		
	950	GORK	46 C	0801.8	0818.7	65.5	200.0			
	950	GORK		0801.8	0833.8		164.0			
	950	GORK		0801.8	0842.3		260.0			
	930	BORD	46 C	0801.8	0842.3	47.2	306.0	21.0		
	536	ONDR	48 C	0802.0	0815.8	62.0	344.0	85.0		
	536	ONDR		0802.0	0834		338.0			
	536	ONDR		0802.0	0842.5		319.0			
	606	LEAR	47 GB	0807.1	0818.1	43.5	1300			
	810	KRAK	49 GB	0807.5	0818.5	39.5	580.0	46.0		
	810	KRAK		0807.5	0842.6		580.0			
	810	KRAK		0807.5	0834.7		340.0			
	430	KRAK	49 GB	0808.0	0812.7	68.5	630.0	280.0U		
	430	KRAK		0808.0	0816.2		790.0D			
	430	KRAK		0808.0	0830 U		790.0D			
	430	KRAK		0808.0	0844 U		790.0D			
	228	HARS	49 GB	0809.0	0840.5	60.0	1150.0	200.0		
	410	LEAR	47 GB	0809.1	0833.8	50.4	1300			
	1415	LEAR	4 S/F	0809.1	0812.1	3.5	44			
	260	ONDR	48 C	0810.0		63.0	202.0D	74.0		
	2000	TYKW	5 S	0812.0	0812.1	.6	4.0	1.0		
	245	LEAR	47 GB	0812.1	0840.8	47.4	2700			
	1415	ATHN	4 S/F	0812.3	0809.6	8.0	48			
	1415	ATHN	4 S/F	0824.5	0827.1	8.5	29			
	204	IZMI	45 C	0825.0	0843.8	30.0	150.0	400.0		
	204	IZMI		0825.0	0834.2		650.0			
	3100	CRIM	26 FAL	0937.0	1129.0		10.0			
	930	BORD	41 F	1132.8	1132.8	.4	13.0	2.0		
	2800	OTTA	24 R	1320.0	1346	26.0	3.8	1.9		
	2800	OTTA	27AFRF	1320.0		215.0	3.8	3.5		
	2800	OTTA	24P R	1346.0		180.0	3.8			
	5200	BERN	22 GRF	1437.0	1454.5	50.0	35.0			ONLY PAPER REC
	3200	BERN	22 GRF	1437.0	1454.5	50.0	.0			ONLY PAPER REC
	2800	OTTA	21 GRF	1440.0	1458	50.0	7.6	2.6		
	2800	OTTA	2 S/F	1449.0	1451.5	9.0	7.6	3.8		
	7000	SAOP	20 GRF	1449.1	1451.7	20.8	16.0	8.0		18R
	2800	OTTA	26 FAL	1646.0	1655	9.0	-3.8	-1.9		
	2800	OTTA	22 GRF	1734.0	1739.2	25.0	11.0	5.0		
	2800	OTTA	22 GRF	1810.0	1828	35.0	4.8	2.2		
	2800	OTTA	4 S/F	1940.0	1943.3	6.0	36.0	12.0		
	7000	SAOP	45 C	1940.0	1943.3	11.2	40.0	20.0		15R
	2695	PALE	4 S/F	1942.0	1943.3	2.8	41			

SOLAR RADIO EMISSION
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MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
18	4995	PALE	4	S/F	1942.3	1943.3	2.3	45			
	8800	PALE	8	S	1942.6	1943.3	1.0	41			
	245	PALE	8	S	1944.8	1945.0	.3	43			
	2800	OTTA	29	PBI	1946.0	1946	45.0	8.6	3.0		
	2800	OTTA	22	GRF	2135.0	2151	65.0	4.8	2.0		
	3750	TYKW	5	S	2151.0	2151.8	12.0	3.0	1.0		
	2000	TYKW	5	S	2151.0	2151.5	2.0	2.0	.7		
	410	LEAR	8	S	2355.3	2355.6	.5	26			
19	260	ONDR	44	NS	0544.0		584.0D	54.0			
	204	IZMI	43	NS	0600.0		3600.0D	51.0			
	127	TORN	44	NS	0730.0E		510.0D		17.0		V1,DISTURBED
	245	SGMR	43	NS	0922.0	1215.8	518.0D	18			
	200	HIRA	44	NS	1928.0E	0523	850.0D	85.0	40.0		MR
	100	HIRA	44	NS	1928.0E	0858	850.0D	600.0	45.0		SR
	208	VORO	44	NS	2100.0E		360.0D		23.0		
	3750	TYKW	20	GRF	0005.0	0013	30.0	2.0	1.0		
	245	LEAR	8	S	0120.0	0122.0	1.3	21			
	410	LEAR	8	S	0121.3	0122.0	1.0	23			
	410	LEAR	8	S	0130.0	0130.1	.3	13			
	245	LEAR	8	S	0130.1	0130.1	.4	66			
	9375	YUNN	2	S/F	0154.0	0156	4.0				RIF 12
	3750	TYKW	21	GRF	0159.0	0215	45.0	3.0	1.0		
	3750	TYKW	5	S	0159.0	0200.2	2.0	12.0	4.0		
	9400	TYKW	5	S	0159.6	0200.1	1.5	3.0	1.0		
	2000	TYKW	21	GRF	0200.0	0215	35.0	1.5	.7		
	2000	TYKW	5	S	0200.0	0200.3	1.0	1.5	.5		
	2963	YUNN	2	S/F	0200.0	0201	1.0				RIF 3.4
	3750	TYKW	29	PBI	0201.0		5.0	3.0	1.5		
	2963	YUNN	8	S	0207.0	0207	1.5				RIF 25
	3750	TYKW	5	S	0228.5	0229.2	1.5	2.0	.7		
	3750	TYKW	20	GRF	0250.0	0315	40.0	2.0	1.0		
	2000	TYKW	20	GRF	0250.0	0315	40.0	2.0	1.0		
	9375	YUNN	2	S/F	0304.0	0304.6	1.0				RIF B26
	9375	YUNN	7	C	0306.0	0307	2.0				RIF B19
	2963	YUNN	32	ABS	0318.0	0333	26.0				RIF 4.8
	3750	TYKW	20	GRF	0335.0	0344	45.0	4.0	1.5		
	2000	TYKW	20	GRF	0340.0	0346	30.0	1.5	.7		
	2963	YUNN	32	ABS	0412.0	0520	157.0				RIF 44.6
	3750	TYKW	21	GRF	0425.0	0436	45.0	4.0	1.5		
	245	LEAR	8	S	0531.6	0531.6	.2	410			
	3750	TYKW	5	S	0541.0	0542.3	8.0	3.0	1.0		
	9375	YUNN	7	C	0818.0	0819	3.0				RIF 12
	9375	YUNN	7	C	0823.0	0823.6	5.0				RIF 14
	33	UPIC	42	SER	0902.5	0902.7	109.2				
	29	UPIC	42	SER	0902.7	1050.8	109.7				
	3100	CRIM	26	FAL	1030.0	1103.0		6.0			
	2800	OTTA	20	GRF	1422.0	1428	35.0	3.4	1.6		
	2800	OTTA	22	GRF	1605.0	1640	80.0	8.4	4.2		
	2800	OTTA	22	GRF	1845.0	1917	40.0	10.2	5.1		
	2800	OTTA	20	GRF	2120.0	2135	75.0	3.4	2.6		
	3750	TYKW	21	GRF	2304.0	2318.6	5.0	9.0	3.0		
	2695	PENT	240	R	2305.0	2320	15.0	5.2	2.6		
	8800	LEAR	8	S	2322.3	2322.6	.7	29			
	2695	LEAR	8	S	2322.3	2322.6	.5	18			
	4995	LEAR	8	S	2322.3	2322.6	.5	17			
	15400	LEAR	8	S	2322.5	2322.6	.3	47			
20	245	LEAR	43	NS	0001.1	0432.1	570.9D	68			
	260	ONDR	44	NS	0541.0E		514.0D	74.0	6.0		
	204	IZMI	44	NS	0600.0E		3600.0D	79.0			
	245	SGMR	43	NS	0921.0	1002.1	519.0D	95			
	200	HIRA	44	NS	1927.0E	0353	850.0D	120.0	35.0		
	100	HIRA	44	NS	1927.0E		850.0D				
	208	VORO	44	NS	2100.0E		120.0D		12.0		
	245	LEAR	43	NS	2309.0	2316.0	623.0D	290			
	3750	TYKW	21	GRF	0025.0	0103	100.0	5.0	2.0		
	9400	TYKW	45	C	0027.0	0027.7	4.0	4.0	1.5		
	3750	TYKW	5	S	0027.0	0027.5	1.5	1.0	.3		
	2695	PENT	240	R	0035.0	0050	15.0	3.6			
	9400	TYKW	20	GRF	0040.0	0100	60.0	3.0	1.5		
	2000	TYKW	20	GRF	0040.0	0100	75.0	3.0	1.0		
	3750	TYKW	5	S	0042.0	0044	6.0	2.0	.7		
	410	LEAR	8	S	0057.6	0057.6	.2	150			
	245	LEAR	8	S	0057.6	0057.6	.2	16			
	606	LEAR	8	S	0057.6	0057.6	.2	11			
	245	PALE	8	S	0227.1	0227.6	1.5	60			
	2840	PEKG	22	GRF	0239.0	0259.5	26.0	42.0	16.0		
	3750	TYKW	28	PRE	0242.0	0244.5	8.0	6.0	3.5		
	2000	TYKW	28	PRE	0242.0	0245	9.0	2.5	1.5		
	2963	YUNN			0245.0	0301	60.0				RIF 24
	9400	TYKW	20	GRF	0250.0	0300	150.0	13.0	5.0		
	2750	TYKW	45	C	0250.0	0259.5	30.0	49.0	18.0D		
	2000	TYKW	45	C	0251.0	0259.6	13.0	27.0	10.0		
	1000	TYKW	45	C	0254.0	0258.1	6.0D	5.0	1.0D		

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DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
20	4995	PALE	4	S/F	0255.1	0259.5	8.9	31			
	2695	PALE	4	S/F	0255.3	0259.5	11.8	33			
	8800	PALE	4	S/F	0300.3	0300.8	7.7	18			
	15400	PALE	4	S/F	0300.3	0300.8	7.7	21			
	2000	TYKW	29	PBI	0304.0		55.0	9.0	4.0		
	9375	YUNN	2	S/F	0320.0	0321	2.0				RIF 29
	245	PALE	8	S	0323.6	0324.0	2.0	26			
	245	LEAR	8	S	0323.8	0324.5	2.0	23			
	9375	YUNN	2	S/F	0326.0	0327	1.0				RIF 20
	2000	TYKW	20	GRF	0455.0	0505	65.0	2.0	1.0		
	2000	TYKW	20	GRF	0733.0	0737	70.0	2.0	1.0		
	3750	TYKW	20	GRF	0734.0	0737	30.0	3.0	1.0		
	3750	TYKW	20	GRF	0812.0	0815	30.0	3.0	1.5		
	930	BORD	41	F	0910.5	0911	.6	13.0	2.0		
	2800	OTTA	20	GRF	1130.0	1200	70.0	4.2	2.1		
	810	KRAK	8	S	1153.4	1153.4	.2	11.0			
	430	KRAK	8	S	1153.5	1153.5	.3	53.0			
	2000	TYKW	20	GRF	2140.0	2152	50.0	3.0	1.5		
	2800	OTTA	20	GRF	2140.0	2150	55.0	6.4	2.6		
	3750	TYKW	21	GRF	2145.0	2152	75.0	3.0	1.0		
	3750	TYKW	5	S	2148.5	2149.1	1.5	2.0	.5		
21	410	LEAR	43	NS	0240.0	0506.8	412.0D	13			
	260	ONDR	44	NS	0550.0E		500.0D	34.0	5.0		
	204	IZMI	44	NS	0600.0E		3600.0D	52.0			
	29	UPIC	43	NS	1008.7		471.3D				
	33	UPIC	43	NS	1009.0		471.0D				
	606	SGMR	43	NS	1147.0	1345.0	373.0D	530			
	410	SGMR	43	NS	1150.1	1345.1	369.9D	750			
	810	KRAK	43	NS	1342.0	1400.0	40.5	60.0	1.0		
	127	TORN	44	NS	1420.0E		100.0D		170.0D		V0
	245	PALE	43	NS	1630.0	1726.3	740.0	210			
	245	PALE	43	NS	1630.0	1835.0	125.0D	119			
	200	HIRA	44	NS	1924.0E	0510	850.0D	400.0	130.0		SR
	100	HIRA	44	NS	1924.0E	0517	850.0D	2600.0	1000.0		SR
	208	VORO	44	NS	2100.0E		360.0D		85.0		
	245	LEAR	43	NS	2309.0	0519.3	622.0D	200			
	2695	PENT	20	GRF	0015.0	0040	55.0	6.8	3.2		
	3750	TYKW	20	GRF	0020.0	0039.5	50.0	3.0	1.0		
	2000	TYKW	21	GRF	0020.0	0039.5	40.0	5.0	1.5		
	2000	TYKW	5	S	0020.0	0021	5.0	1.5	.5		
	9375	YUNN	2	S/F	0119.0	0120	2.0				RIF 13
	2840	PEKG	22	GRF	0209.0	0213.3	16.0	9.4			
	3750	TYKW	5	S	0210.0	0213.2	15.0	10.0	3.0		
	2000	TYKW	5	S	0210.0	0214	20.0	1.5	.7		
	9375	YUNN	7	C	0215.0	0216.5	2.0				RIF 14
	9375	YUNN	7	C	0304.0	0307	5.0				RIF 21
	9375	YUNN	7	C	0447.0	0449	3.0				RIF 26
	430	KRAK	8	S	1129.3	1129.5	.8	150.0			
	810	KRAK	8	S	1129.5	1129.5	.2	14.0			
	536	ONDR	48	C	1150.0	1345	140.0D	214.0	42.0		
	260	ONDR	48	C	1150.0		140.0D	202.0D	62.0		
	430	KRAK	49	GB	1150.5	1213.2	130.0D	140.0	160.0U		
	430	KRAK			1150.5	1344.7		790.0D			
	430	KRAK			1150.5	1316.3		540.0			
	2800	OTTA	240	R	1152.0	1156	4.0	3.4	1.7		
	810	KRAK	48	C	1220.8	1224.3	77.0	360.0	25.0		
	810	KRAK			1220.8	1227.2		360.0			
	810	KRAK			1220.8	1300.0		550.0			
	930	BORD	42	SER	1221.0	1258.2	124.0	409.0	8.0		
	930	BORD			1221.0	1224.2		195.0			
	930	BORD			1221.0	1250		209.0			
	930	BORD			1221.0	1259.8		392.0			
	808	ONDR	48	C	1221.3		43.0	98.0D	15.0		
	2800	OTTA	21	GRF	1235.0	1350	235.0	8.6	6.0		
	2800	OTTA	1	S	1530.0	1535	10.0	2.6	1.3		
	245	PALE	8	S	1704.3	1704.8	1.2	60			
	410	PALE	8	S	1704.5	1705.1	1.1	25			
	2800	OTTA	20	GRF	1725.0	1740	50.0	4.2	2.0		
	2800	OTTA	260	FAL	1930.0	1940	10.0	-4.0	-2.0		
	2695	LEAR	4	S/F	2314.8	2315.6	4.8	21			
	4995	LEAR	8	S	2314.8	2315.6	.8	18			
	410	LEAR	8	S	2315.0	2315.3	.1	11			
22	29	UPIC	44	NS	0400.0E		840.0D				
	33	UPIC	44	NS	0400.0E		840.0D				
	204	IZMI	44	NS	0600.0E		3600.0D	50.0			
	127	TORN	44	NS	0600.0E		90.0D		180.0		V0
	260	ONDR	44	NS	0616.0E		475.0D	182.0	15.0		
	100	HIRA	44	NS	1923.0E	0522	850.0D	260.0	45.0		SR
	200	HIRA	44	NS	1923.0E	0153	850.0D	100.0	45.0		MR
	208	VORO	44	NS	2100.0E		360.0D		42.0		
	245	LEAR	43	NS	2310.0	0415.3	621.0D	48			
	9375	YUNN	1	S	0138.0	0139	2.0				RIF 13
	2000	TYKW	20	GRF	0332.0	0337	30.0	3.0	1.0		

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22	3750	TYKW	20	GRF	0333.0	0337	30.0	4.0	1.5		
	2000	TYKW	20	GRF	0410.0	0424	60.0	3.0	1.0		
	3695	YUNN	45	C	0617.0	0625	21.0				RIF 114
	5200	BERN	45	C	0618.0	0623.2	25.0	184.0			ONLY PAPER REC
	11800	BERN	45	C	0618.0	0623.2	20.0	29.0			ONLY PAPER REC
	3200	BERN	45	C	0618.0	0623.2	25.0	.0			ONLY PAPER REC
	2000	TYKW	45	C	0618.0	0623.7	10.0	130.0	18.0		
	2840	PEKG	46	C	0618.0	0623.3	10.3	147.0	29.0		
	2950	GORK	21	GRF	0618.2	0626.9	17.0	11.0	5.5		
	1415	ATHN	4	S/F	0618.5	0623.6	9.1D	47			
	2695	ATHN	4	S/F	0618.5	0623.5	10.5D	139			
	2650	DWIN	45	C	0619.0	0623	16.0	130.0	60.0		
	950	GORK			0619.0	0631.7		9.5			
	1000	TYKW	45	C	0619.0	0623.7	8.0	24.0	6.0		
	950	GORK	46	C	0619.0	0622.8	19.8	23.0			
	3750	TYKW	45	C	0619.0	0623.3	11.0	155.0	25.0		
	4995	ATHN	4	S/F	0619.3	0623.5	9.3D	119			
	650	GORK			0619.4	0631.5		30.0			
	650	GORK	46	C	0619.4	0623.7	16.2	11.0			
	5730	IRKU	2	S	0619.5	0623.4	6.0	116.0			L
	2950	GORK	4	S/F	0619.8	0623.3	6.3	135.0			
	9400	TYKW	5	S	0620.0	0623.2	11.0	56.0	11.0		
	204	IZMI	6	S	0620.0	0623.4	6.5	126.0	90.0		
	9395	PEKG	3	S	0620.0	0623.3	14.0	56.1	15.0		
	10715	DWIN	1	S	0620.0	0623	10.0	48.0	2.0		
	8800	ATHN	4	S/F	0620.1	0623.3	8.2	42			
	9100	GORK	21	GRF	0620.8	0625.5	12.5	14.0			
	9100	GORK	3	S	0622.0	0623.2	3.5	47.0	21.0		
	9375	YUNN	1	S	0622.0	0625	8.0				RIF 17
	5730	IRKU			0626.0	0631.5		30.0			L
	5730	IRKU	30	PBI	0626.0		14.0	15.0			L
	2000	TYKW	31	ABS	0628.0	0645	75.0	4.0	2.0		
	2840	PEKG	4	S/F	0628.3	0629.3	6.7	26.4	7.0		
	536	ONDR	4	S/F	0629.7	0632	5.0	43.0	14.0		
	2000	TYKW	5	S	0630.0	0631.4	5.0	17.0	5.0		
	1000	TYKW	5	S	0630.0	0631.6	6.0	8.0	2.5		
	3750	TYKW	45	C	0630.0	0631.4	4.0	60.0	8.0		
	410	LEAR	4	S/F	0630.3	0631.5	2.5	82			
	606	LEAR	4	S/F	0630.3	0631.5	3.5	54			
	2950	GORK	4	S/F	0630.6	0631.3	2.6	29.0			
	245	LEAR	8	S	0630.8	0631.5	2.0	240			
	4995	LEAR	8	S	0631.0	0631.3	1.8	24			
	2695	LEAR	8	S	0631.0	0631.5	1.8	25			
	9400	TYKW	5	S	0631.0	0631.4	1.0	8.0	3.0		
	8800	LEAR	8	S	0631.1	0631.3	.9	01			
	1415	LEAR	8	S	0631.1	0631.8	2.0	10			
	9400	TYKW	31	ABS	0632.0	0635	7.0	3.0	1.5		
	3750	TYKW	31	ABS	0634.0	0636	95.0	3.0	1.5		
	204	IZMI	1	S	0830.8	0831.5	2.2	28.0	18.0		
	2800	OTTA	20	GRF	1605.0	1630	110.0	3.0	1.8		
	7000	SAOP	3	S	1703.0	1703.5	1.0	11.0	5.0		0
	15400	PALE	8	S	1718.8	1719.5	1.3	33			
	245	PALE	8	S	2140.1	2140.3	.5	28			
	410	PALE	8	S	2140.1	2140.3	.5	250			
23	260	ONDR	44	NS	0610.0E		481.0D	91.0	10.0		
	200	HIRA	44	NS	1923.0E		850.0D		5.0		WR
	208	VORO	44	NS	2100.0E		360.0D		13.0		
	245	LEAR	43	NS	2310.0	0313.3	621.0D	260			
	3750	TYKW	21	GRF	0320.0	0400	13.0	4.0	1.5		
	2000	TYKW	21	GRF	0320.0	0400	130.0	3.0	1.5		
	2000	TYKW	5	S	0321.0	0322.3	2.0	2.0	.7		
	3750	TYKW	45	C	0321.0	0324.0	4.0	9.0	3.5		
	1000	TYKW	8	S	0321.5	0321.6	.2	9.0	2.0		
	9400	TYKW	21	GRF	0322.0	0355	100.0	4.0	2.0		
	9400	TYKW	5	S	0322.0	0325	15.0	3.0	1.5		
	2000	TYKW	45	C	0323.0	0324.6	3.0	3.5	1.5		
	1000	TYKW	45	C	0323.0	0324.6	4.0	3.0	.7		
	245	LEAR	8	S	0324.1	0324.3	.4	310			
	3750	TYKW	30	PBI	0325.0		15.0	2.0	1.0		
	3750	TYKW	5	S	0331.0	0332.3	5.0	2.0	.7		
	9375	YUNN	7	C	0439.0	0440	3.0				RIF 25
	9375	YUNN	2	S/F	0738.0	0740	3.0				RIF 12
	9375	YUNN	7	C	0825.0	0827	4.0				RIF 12
	2800	OTTA	240	R	1800.0	1910	70.0	1.0	3.5		
	3750	TYKW	5	S	2143.0	2143.8	2.5	6.0	1.5		
	3750	TYKW	21	GRF	2143.0	2220	135.0	3.0	1.5		
	2000	TYKW	21	GRF	2150.0	2220	120.0	2.0	1.0		
	3750	TYKW	5	S	2202.2	2202.6	1.0	2.0	.5		
	2000	TYKW	5	S	2202.3	2202.7	1.0	6.0	1.5		
	3750	TYKW	5	S	2245.0	2245.7	2.0	1.5	.5		
24	260	ONDR	44	NS	0611.0E		473.0D	40.0	3.0		
	204	IZMI	43	NS	0630.0		3300.0D	55.0			
	208	VORO	44	NS	2100.0E		360.0D		10.0		

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					UT	UT	MINUTES	PEAK	MEAN		
24	245	LEAR	43	NS	2311.0	0909.3	620.0D	100			
	3750	TYKW	20	GRF	0110.0	0147.5	160.0	6.0	2.5		
	1000	TYKW	45	C	0119.3	0120.0	2.0	11.0	2.5		
	245	LEAR	4	S/F	0119.3	0122.3	4.0	58			
	410	LEAR	4	S/F	0119.8	0120.0	3.2	10			
	606	LEAR	4	S/F	0119.8	0120.0	3.3	130			
	2000	TYKW	20	GRF	0130.0	0150	140.0	2.0	1.0		
	2000	TYKW	21	GRF	0420.0	0500	130.0	3.0	1.5		
	3750	TYKW	21	GRF	0430.0	0450	120.0	6.0	2.5		
	2000	TYKW	45	C	0433.0	0437.0	10.0	4.0	1.5		
	9375	YUNN	2	S/F	0440.0	0443	4.0				RIF 29
	3750	TYKW	45	C	0604.0	0605.6	3.0	3.5	1.0		
	1415	LEAR	8	S	0708.3	0708.6	.3	20			
	2000	TYKW	20	GRF	0740.0	0810	80.0	5.0	2.5		
	3750	TYKW	20	GRF	0745.0	0820	75.0	7.0	3.5		
	1000	TYKW	20	GRF	0750.0	0810	70.0	2.0	1.0		
	33	UPIC	42	SER	0835.1		217.4				
	29	UPIC	42	SER	0835.4	0836	217.1				
	9375	YUNN	1	S	0846.0	0847	2.0				RIF 15
	810	KRAK	8	S	1036.0	1036.1	.2	18.0			
	2800	OTTA	23	GRF	1405.0	1420	100.0	6.8	3.6		
	2695	PENT	1	S	1412.0	1413	2.0	3.4	1.7		
	930	BORD	41	F	1505.3	1505.3	.5	18.0	2.0		
	2800	OTTA	20	GRF	1825.0	1905	85.0	4.4	2.6		
	2800	OTTA	240	R	2105.0	2130	25.0	3.0	1.5		
	3750	TYKW	21	GRF	2117.0	2130	45.0	3.0	1.0		
	3750	TYKW	5	S	2118.0	2118.2	.5	3.0	1.0		
	1000	TYKW	8	S	2123.4	2123.5	.3	12.0	3.0		
	2000	TYKW	21	GRF	2210.0	2320	230.0	5.0	2.0		
	9400	TYKW	20	GRF	2213.0	2218	50.0	3.0	1.5		
	3750	TYKW	21	GRF	2213.0	2320	260.0	7.0	4.0		
	3750	TYKW	45	C	2214.5	2215.9	5.5	7.0	4.0		
	2800	OTTA	240	R	2215.0	2216	1.0	3.4	1.7		
	3750	TYKW	29	PBI	2220.0		35.0	2.0	1.0		
	1000	TYKW	20	GRF	2220.0	2320	130.0	1.5	.7		
	2695	PENT	20	GRF	2235.0	2340	105.0	2.0	1.6		
	3750	TYKW	5	S	2257.0	2257.6	1.5	1.5	.5		
25	260	ONDR	44	NS	0600.0E		490.0D	71.0	4.0		
	208	VORO	44	NS	2100.0E		360.0D		10.0		
	245	LEAR	43	NS	2311.0	0155.5	508.1D	58			
	1415	LEAR	8	S	0007.5	0007.6	.3	180			
	2695	PENT	20	GRF	0030.0	0105	60.0	2.8	2.1		
	3750	TYKW	21	GRF	0030.0	0107	120.0	4.0	1.5		
	2000	TYKW	21	GRF	0035.0	0100	70.0	1.5	.7		
	2000	TYKW	5	S	0036.0	0037	3.0	2.5	1.0		
	3750	TYKW	5	S	0202.7	0202.9	1.5	1.5	.5		
	410	LEAR	8	S	0238.3	0239.0	1.0	29			
	9400	TYKW	20	GRF	0255.0	0321	85.0	8.0	4.0		
	3750	TYKW	20	GRF	0255.0	0320	85.0	8.0	4.5		
	1000	TYKW	20	GRF	0255.0	0315	75.0	3.0	1.0		
	2000	TYKW	20	GRF	0258.0E	0315	82.0D	6.0	2.5D		
	500	HIRA	22	GRF	0321.0	0328.0	52.0	10.0	3.0		WR
	410	LEAR	8	S	0402.3	0402.8	.7	260			
	606	LEAR	8	S	0402.6	0402.6	.2	13			
	410	LEAR	8	S	0405.0	0406.0	1.5	40			
	1000	TYKW	8	S	0433.7	0433.9	.4	26.0	7.0		
	9375	YUNN	7	C	0520.0	0522	4.0				RIF 14
	2000	TYKW	20	GRF	0543.0	0546.5	45.0	2.0	.7		
	3750	TYKW	20	GRF	0543.0	0546.3	65.0	3.0	1.0		
	2000	TYKW	45	C	0715.0	0730.5	25.0	9.0	4.5		
	3750	TYKW	45	C	0715.0	0724.2	35.0	13.0	7.0		
	9400	TYKW	20	GRF	0715.0	0735	65.0	12.0	5.0		
	1000	TYKW	21	GRF	0715.0	0731	45.0	2.0	1.0		
	2963	YUNN			0719.0	0723	9.0				RIF 6
	3695	YUNN	7	C	0719.5	0723.5	5.0				RIF 7.1
	9100	GORK	22	GRF	0720.5	0735.1	170.0	19.0			
	29	UPIC	45	C	0720.8	0721.6	7.9				
	33	UPIC	45	C	0721.0	0721.5	7.6				
	2840	PEKG	20	GRF	0721.0	0733	31.0	9.3	5.4		
	1000	TYKW	5	S	0721.5	0721.6	.5	6.0	2.0		
	2000	TYKW	29	PBI	0740.0		40.0	4.0	2.0		
	3750	TYKW	29	PBI	0750.0		40.0	5.0	2.0		
	410	LEAR	8	S	0803.1	0803.3	.2	33			
	9375	YUNN	1	S	0845.0	0846	2.0				RIF 11
	2800	OTTA	24	R	1105.0	1135	30.0	5.0	2.9		
	2800	OTTA	27F	RF	1105.0		465.0	5.8	4.3		
	2950	GORK	20	GRF	1114.1	1130.5	52.5	12.0	6.0		
	810	KRAK	8	S	1125.5	1125.5	.2	13.0			
	7000	SAOP	3	S	1134.4	1134.8	1.8	13.0	6.0		10L
	9100	GORK	1	S	1134.5	1134.8	1.5	15.0	7.0		
	6100	KISV	1	S	1134.5	1134.8	1.0	5.0			
	2800	OTTA	24P	R	1135.0		230.0	5.8			
	810	KRAK	8	S	1142.2	1142.2	.2	13.0			
	2800	OTTA	26	FAL	1525.0	1900	205.0	-5.8	-2.9		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
25	2800	OTTA	20 GRF	2015.0	2030	25.0	2.6	1.3		
	2695	PENT	20 GRF	2320.0	2405	120.0	3.6			
26	260	ONDR	44 NS	0621.0E		465.0D	18.0			
	1000	TYKW	45 C	0036.0	0037.3	3.0	5.0	1.0		
	2000	TYKW	20 GRF	0040.0	0055	40.0	2.0	1.0		
	3750	TYKW	20 GRF	0050.0	0100	30.0	2.0	1.0		
	3750	TYKW	5 S	0157.0	0208	25.0	3.0	1.0		
	2000	TYKW	5 S	0157.0	0208	25.0	2.0	1.0		
	1000	TYKW	5 S	0200.0	0205	20.0	1.0	.5		
	9375	YUNN	7 C	0309.0	0310	3.0				RIF 18
	9375	YUNN	2 S/F	0451.0	0452	1.0				RIF 26
	9375	YUNN	7 C	0500.0	0501	3.0				RIF 24
	930	BORD	41 F	0728.0	0728.2	.6	25.0	2.0		
	430	KRAK	41 F	1102.3	1103.6	2.7	26.0			
	810	KRAK	8 S	1110.2	1110.2	.2	11.0			
	430	KRAK	8 S	1115.5	1115.5	.2	37.0			
	2800	OTTA	20 GRF	1220.0	1345	140.0	4.6	2.3		
	2800	OTTA	21 GRF	1723.0	1729	13.0	4.6	2.0		
	2800	OTTA	8 S	1728.5	1728.5	.1	7.4			
	2800	OTTA	20 GRF	2040.0	2117	90.0	4.4	2.2		
	208	VORO	4 S/F	2316.0	2316.5	3.0	58.0			
	245	LEAR	8 S	2316.3	2316.8	1.7	26			
	245	LEAR	8 S	2327.0	2327.1	.5	39			
	245	LEAR	8 S	2332.5	2333.1	1.3	22			
	2695	PENT	20 GRF	2340.0	2358	100.0	3.8	1.9		
	2000	TYKW	20 GRF	2340.0	2358	80.0	2.0	1.0		
	3750	TYKW	20 GRF	2350.0	2355.5	70.0	3.0	1.0		
	9400	TYKW	20 GRF	2350.0	0010	70.0	3.0	1.5		
27	245	LEAR	43 NS	0148.0	0153.5	98.0	31			
	260	ONDR	44 NS	0550.0E		499.0D	24.0			
	245	LEAR	8 S	0145.0	0146.6	1.8	86			
	2000	TYKW	20 GRF	0230.0	0250	60.0	2.0	1.0		
	3750	TYKW	20 GRF	0230.0	0250	55.0	2.0	1.0		
	3750	TYKW	5 S	0352.0	0354.3	4.0	5.0	2.0		
	9400	TYKW	20 GRF	0353.0	0355	5.0	3.0	1.5		
	3750	TYKW	29 PBI	0356.0		30.0	2.0	1.0		
	930	BORD	41 F	0740.8	0740.9	.5	15.0	2.0		
	3750	TYKW	20 GRF	0745.0	0800	65.0	6.0	3.0		
	2000	TYKW	20 GRF	0745.0	0757	65.0	5.0	2.0		
	810	KRAK	42 SER	0749.0	0749.5	2.3	61.0			
	930	BORD	41 F	0750.0	0752.2	3.0	24.0	2.0		
	9400	TYKW	20 GRF	0750.0	0800	50.0D	8.0	5.0D		
	930	BORD	41 F	0843.0	0843.3	.7	71.0	2.0		
	204	IZMI	7 C	0914.6	0914.9	.4	200.0	150.0		
	410	SGMR	4 S/F	1135.3	1137.0	4.8D	25			
	430	KRAK	41 F	1135.5	1137.5	4.0	39.0			
	536	ONDR	2 S/F	1135.7	1137	3.0	10.0	2.0		
	2650	DWIN	45 C	1136.0	1137	2.0	50.0	20.0		
	2695	SGMR	8 S	1136.3	1136.8	2.0	38			
	245	SGMR	4 S/F	1136.3	1137.0	6.8D	490			
	810	KRAK	41 F	1136.3	1137.0	2.5	21.0			
	7000	SAOP	46 C	1136.3	1137.0	1.8	53.0	15.0		10R
	228	HARS	45 C	1136.5	1137.1	1.2	75.0	25.0		
	33	UPIC	45 C	1136.5	1137.8	3.0				
	260	ONDR	4 S/F	1136.5	1137.5	2.0	208.0	61.0		
	808	ONDR	2 S/F	1136.5	1137	1.5	20.0			
	4995	ATHN	8 S	1136.6	1137.3	1.7D	23			
	8800	ATHN	8 S	1136.6	1137.3	1.4	16			
	2800	OTTA	40 F	1136.7	1137	1.0	69.0			
	204	IZMI	4 S/F	1136.7	1137.0	1.3	650.0	300.0		
	1415	ATHN	8 S	1136.8	1137.3	1.5D	300			
	606	SGMR	8 S	1136.8	1137.0	.5D	15			
	1415	SGMR	47 GB	1136.8	1137.1	3.2D	220			
	2695	ATHN	8 S	1136.8	1137.1	1.5D	33			
	29	UPIC	45 C	1136.9	1137.6	2.1				
	1415	SGMR	4 S/F	1337.5	1338.3	3.3D	24			
	2695	SGMR	4 S/F	1338.0	1338.6	2.6	48			
	2650	DWIN	45 C	1338.0	1338	3.0	115.0	40.0		
	2800	OTTA	1A S	1338.0	1339.5	4.0	6.4	3.2		
	2800	OTTA	40 F	1338.3	1338.5	.8	76.0			
	930	BORD	41 F	1456.5	1456.7	.3	15.0	2.0		
	245	SGMR	8 S	1730.6	1730.8	1.2	450			
	410	SGMR	8 S	1730.6	1731.0	1.2D	19			
	2695	PENT	2 S/F	2341.0	2342.1	1.5	4.8			
	2000	TYKW	45 C	2341.4	2341.8	1.5	8.0	2.5		
28	245	LEAR	43 NS	0442.8	0621.0	287.2D	180			
	260	ONDR	44 NS	0555.0E		491.0D	138.0			
	410	PALE	43 NS	2031.5	2130.3	238.5D	119			
	245	PALE	43 NS	2031.5	2140.3	238.5D	220			
	2000	TYKW	20 GRF	0225.0	0225	75.0	2.0	1.0		
	3750	TYKW	20 GRF	0225.0	0250	75.0	3.0	1.5		
	3750	TYKW	21 GRF	0435.0	0449.5	155.0	5.0	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
28	9400	TYKW	2B GRF	0440.0	0450	50.0	3.0	1.5		
	410	LEAR	4 S/F	0605.6	0606.0	2.2	25			
	606	LEAR	4 S/F	0605.6	0607.1	2.2	15			
	4995	LEAR	8 S	0605.6	0606.8	1.9	18			
	950	GORK	2 S/F	0605.7	0606.9	2.0	11.0			
	650	GORK	2 S/F	0605.8	0607.1	1.9	12.0	6.0		
	245	LEAR	8 S	0605.8	0606.8	1.8	24			
	3200	BERN	3 S	0605.8	0606.1	7.0	.0			ONLY PAPER REC
	5200	BERN	3 S	0605.8	0606.1	7.0	21.0			ONLY PAPER REC
	3750	TYKW	5 S	0605.9	0606.2	2.0	10.0	2.5		
	9100	GORK	2 S/F	0606.0	0606.2	3.0	15.0			
	3100	CRIM	1 S	0606.0	0606.2	1.0	7.0	3.0		
	8800	LEAR	8 S	0606.0	0606.1	.6	19			
	2950	GORK	1 S	0609.0	0609.3	5.0	7.0			
	2800	OTTA	24 R	1140.0	1145	5.0	3.8	1.9		
	2800	OTTA	27F RF	1140.0		240.0	3.8	3.4		
	2800	OTTA	24P R	1145.0		195.0	3.8			
	2800	OTTA	26 FAL	1500.0	1540	40.0	-3.8	-1.9		
	2800	OTTA	2B GRF	1740.0	1820	110.0	3.8	2.5		
	2695	PENT	2B GRF	2205.0	2240	90.0	2.2	1.1		
	2000	TYKW	2B GRF	2210.0	2250	100.0	4.0	1.5		
	3750	TYKW	2B GRF	2210.0	2245	100.0	3.0	1.5		
29	245	LEAR	43 NS	0116.1	0126.1	493.9D	24			
	2000	TYKW	2B GRF	0030.0	0044	5.0	2.0	1.0		
	3750	TYKW	2B GRF	0035.0	0050	35.0	2.0	1.0		
	2695	PENT	2B GRF	0035.0	0045	35.0	3.2	1.6		
	245	PALE	8 S	0107.1	0108.3	1.9	40			
	3750	TYKW	21 GRF	0255.0	0353	105.0	5.0	3.0		
	2000	TYKW	21 GRF	0255.0	0352	95.0	3.0	1.5		
	1000	TYKW	45 C	0255.0	0308.0	2.0	9.0	1.5D		
	2000	TYKW	45 C	0259.0	0308.0U	11.0D	8.0	3.0D		
	9400	TYKW	2B GRF	0300.0	0325	80.0	6.0	3.0		
	2695	LEAR	4 S/F	0300.6	0300.8	10.4	00			
	3750	TYKW	45 C	0307.0	0307.9	2.0D	2.0	1.0D		
	1415	LEAR	8 S	0307.8	0308.1	.3	21			
	2000	TYKW	29 PBI	0310.0		10.0	3.0	1.5		
	3750	TYKW	29 PBI	0320.0		120.0	12.0	4.0		
	3750	TYKW	2B GRF	0815.0	0832	35.0	3.0	1.5		
	2000	TYKW	2B GRF	0820.0	0832	30.0	2.0	1.0		
	2963	YUNN	3 S	0903.0	0906	4.0				RIF 8
	2000	TYKW	5 S	2355.0	2357.7	5.0	3.0	2.0		
30	2000	TYKW	29 PBI	0000.0		3.0	1.5	.7		
	15400	PALE	8 S	0417.6	0417.8	.2	39			
	15400	PALE	8 S	0424.0	0424.6	1.6	63			
	245	LEAR	8 S	0647.0	0647.1	.3	10			
	2963	YUNN	1 S	0723.0	0726	7.0				RIF 7
	606	LEAR	8 S	0804.3	0804.3	.2	52			
	606	LEAR	4 S/F	0837.8	0838.8	4.3	10			
	2695	LEAR	4 S/F	0837.8	0838.3	4.3	13			
	15400	LEAR	4 S/F	0837.8	0838.6	4.3	26			
	1415	LEAR	4 S/F	0837.8	0838.8	4.3	13			
	4995	LEAR	4 S/F	0837.8	0838.3	4.3	15			
	8800	LEAR	4 S/F	0837.8	0838.6	4.3	20			
	2800	OTTA	2B GRF	1450.0	1550	170.0	4.4	3.0		
	3750	TYKW	5 S	2325.5	2326.2	1.5	3.0	1.0		
	3750	TYKW	29 PBI	2327.0		15.0	1.0	.5		
31	245	LEAR	8 S	0150.8	0150.8	.2	18			
	3750	TYKW	2B GRF	0225.0	0240	35.0	2.0	1.0		
	2963	YUNN	2 S/F	0740.0	0743	5.0				RIF 10
	2963	YUNN	8 S	0755.0	0800	6.0				RIF 35
	810	KRAK	8 S	0817.8	0817.8	.2	15.0			
	2800	OTTA	24 R	1858.0	1922	24.0	2.8	1.4		
	2800	OTTA	27A RF	1858.0		177.0	2.8	2.5		
	2800	OTTA	1 S	1859.0	1907	2.0	2.0	1.0		
	2800	OTTA	24P R	1922.0		138.0	2.8			
	2800	OTTA	26 FAL	2140.0	2155	15.0	2.8	1.4		
	245	LEAR	8 S	2319.1	2319.3	.4	48			

Reports are received routinely from the following observatories:

ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Izmiran
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PEKG = Peking
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
YUNN = Yunnan
TRST = Trieste
UPIC = Upice
VORO = Voroshilov

Explanation of Type Code:

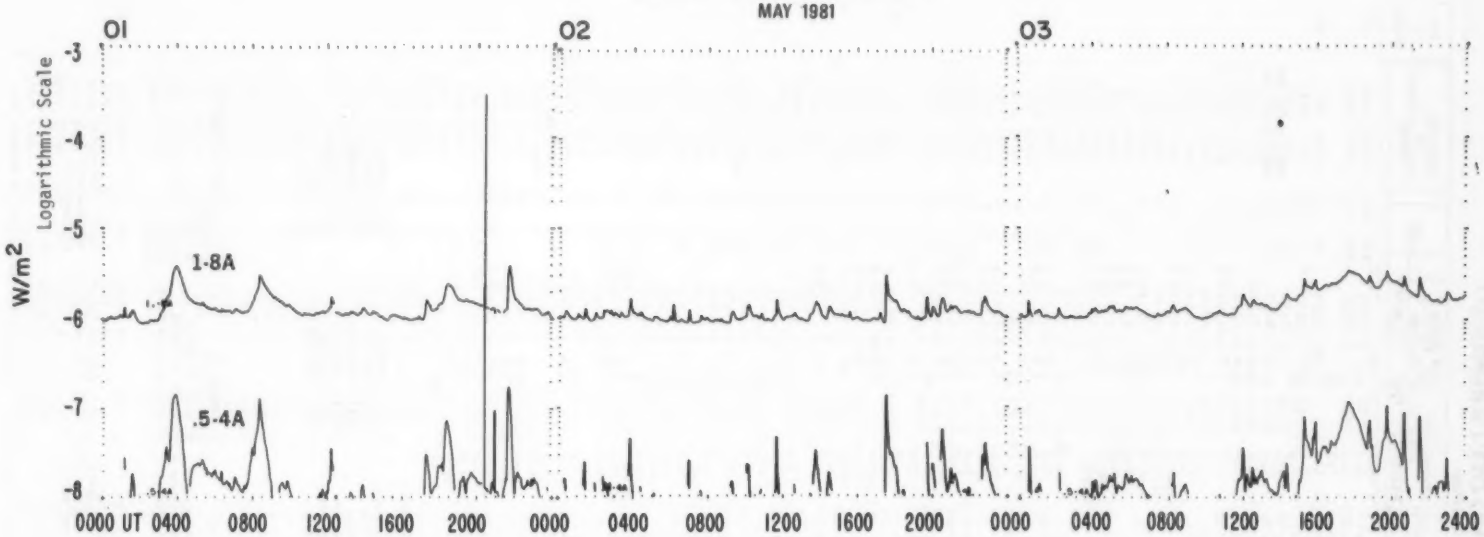
1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

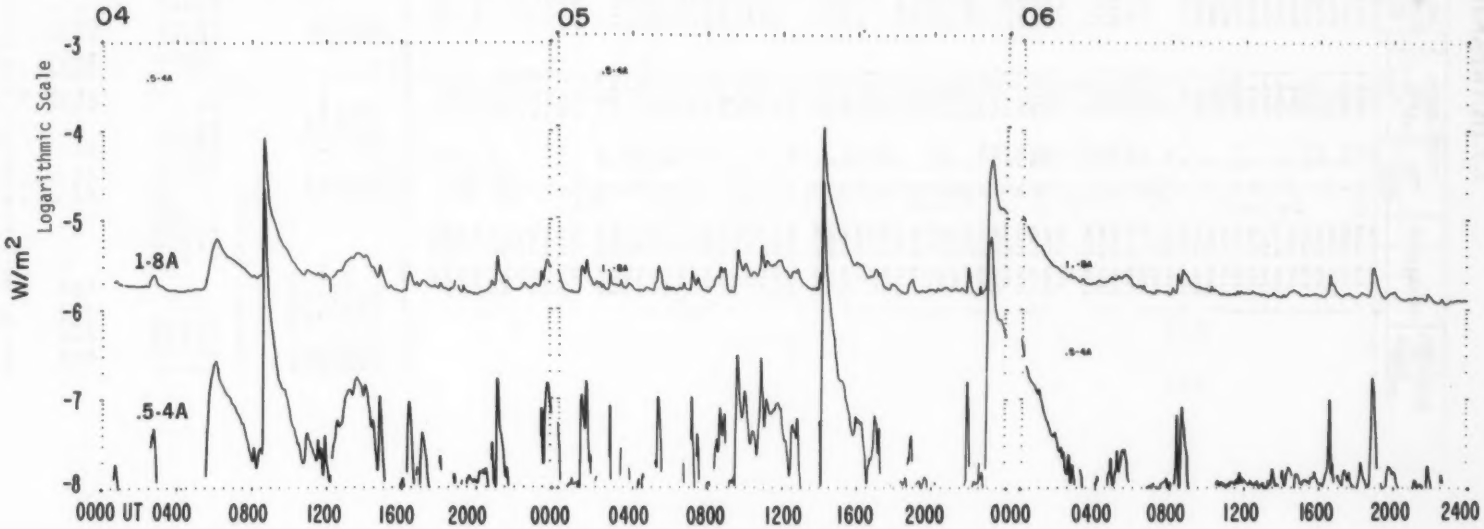
1A Simple 1A
2A Simple 1AF
3A Simple 2A
4A Simple 2AF
21A Simple 3A GRF
24O Rise only
24OF Rise only F
24P Post Rise
24PF Post Rise F
26A Fall A
26O Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A P.B. Decrease A
32A Absorption A
46F Complex F

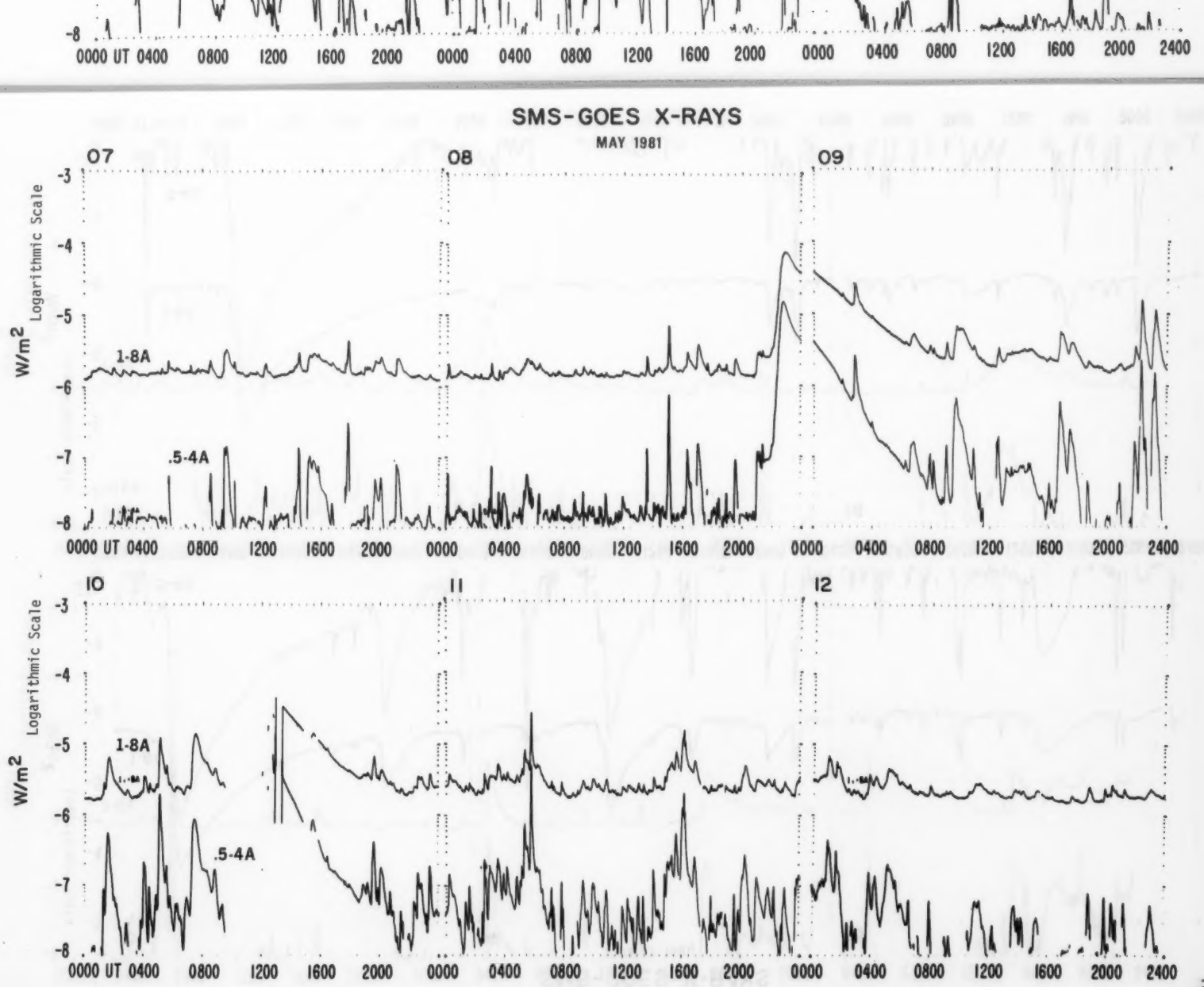
Under the "Remarks" column heading, RIF stands for Relative Increase in Flux. The expression "RIF 469.2", for example, denotes a flux increase of 469.2% above background.

SMS-GOES X-RAYS

MAY 1981






SMS-GOES X-RAYS
MAY 1981
07
08
09
10
11
12
W/m2
Logarithmic Scale
1-8A
.5-4A
-3
-4
-5
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-7
-8
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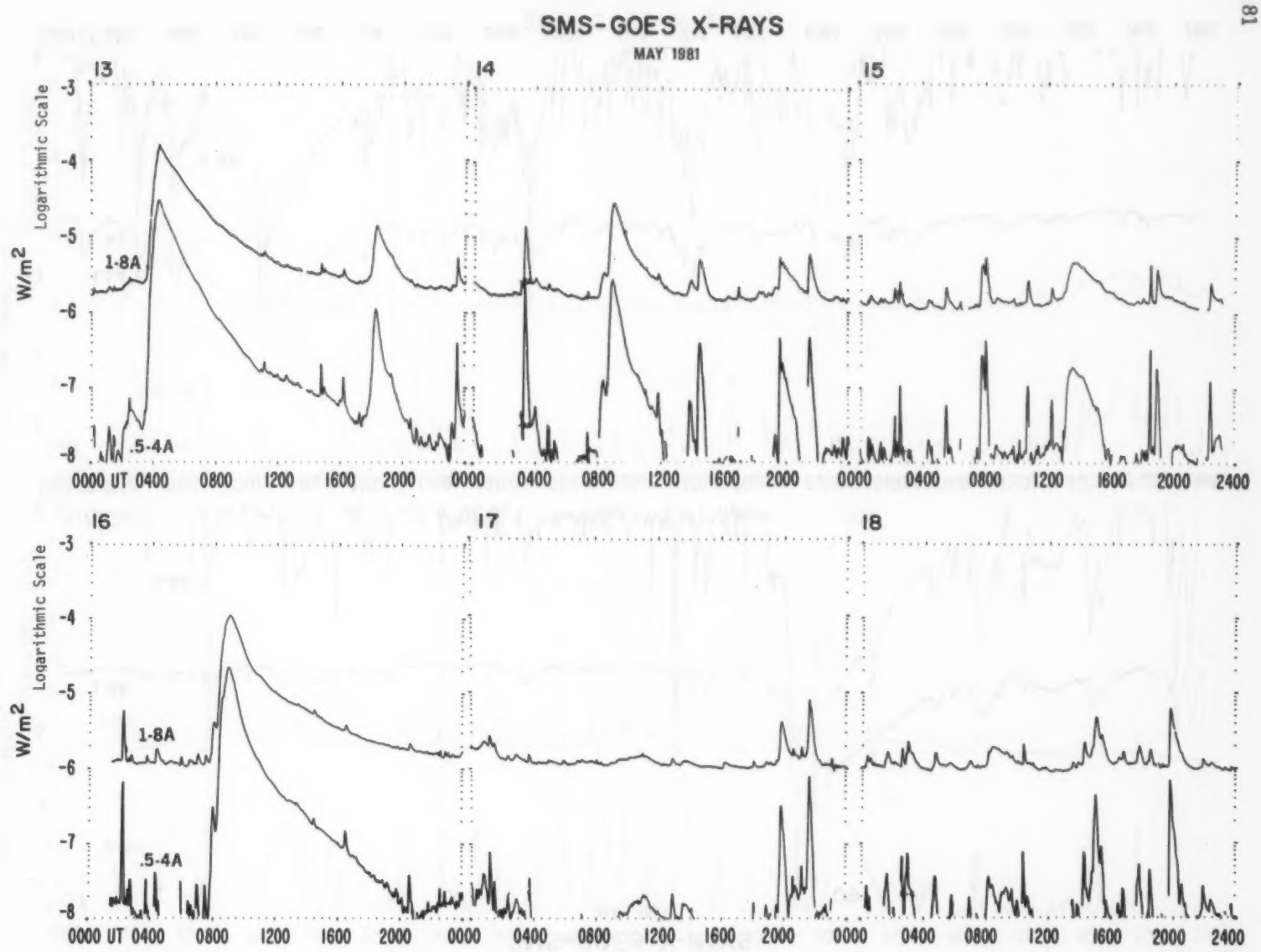
SMS-GOES X-RAYS
MAY 1981
13
14
15
16
17
18
Logarithmic Scale
W/m2
1-8A
.5-4A
-3
-4
-5
-6
-7
-8
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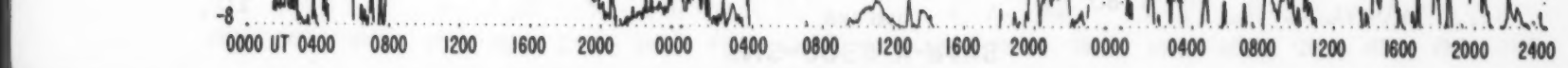
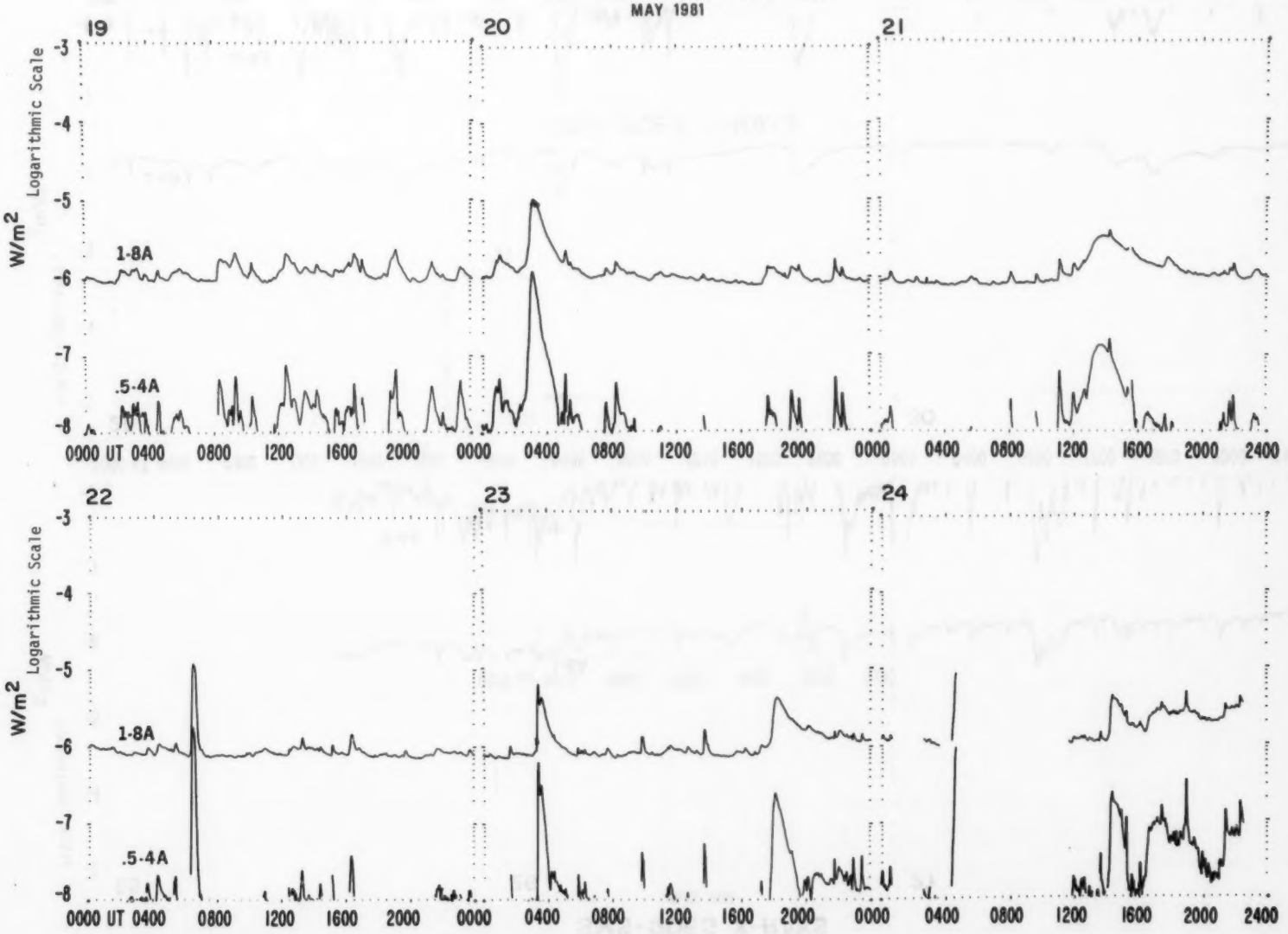


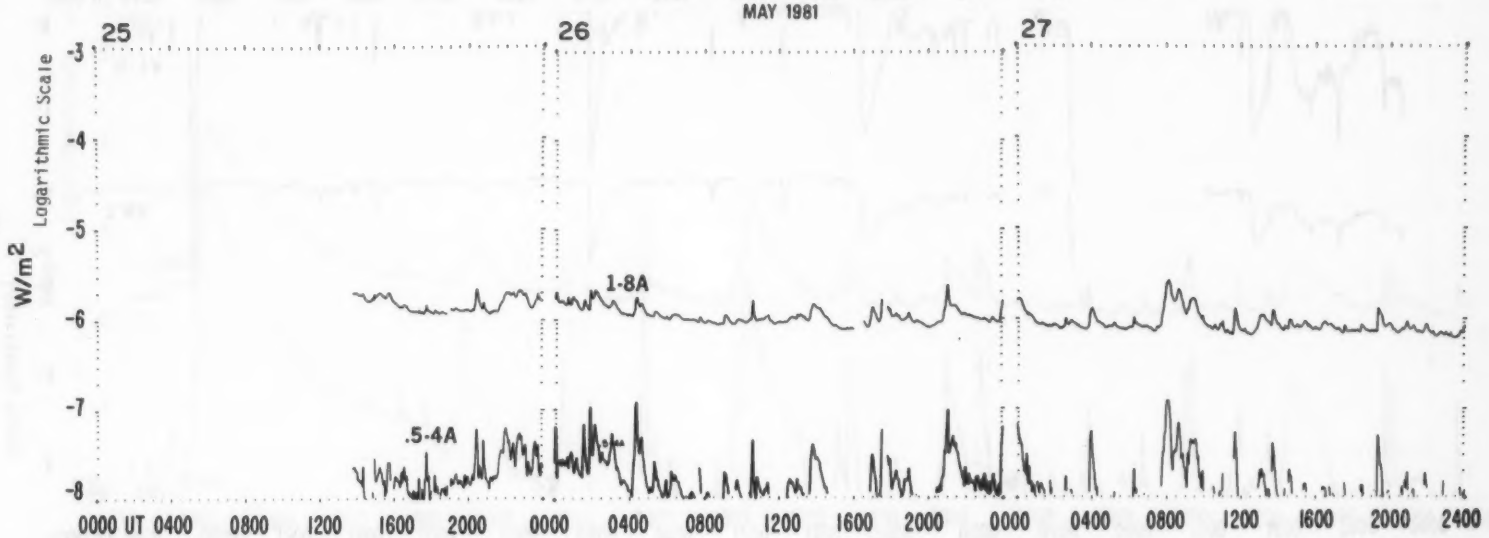
SMS-GOES X-RAYS

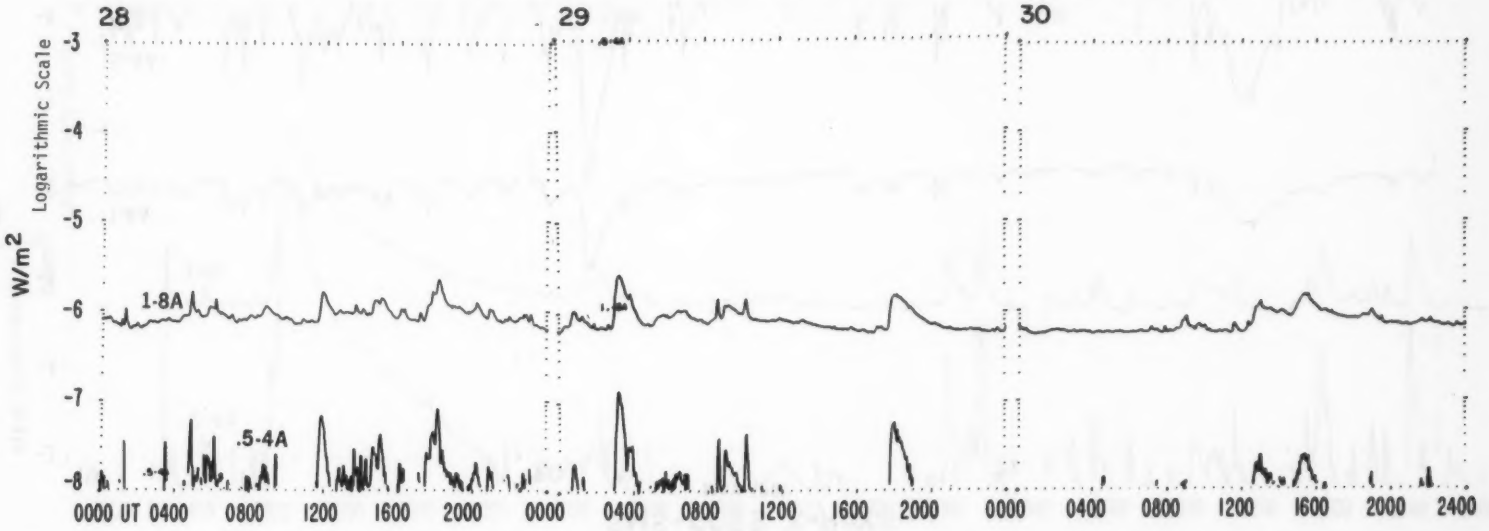
MAY 1981

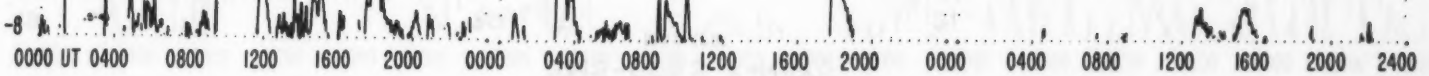


SMS-GOES X-RAYS

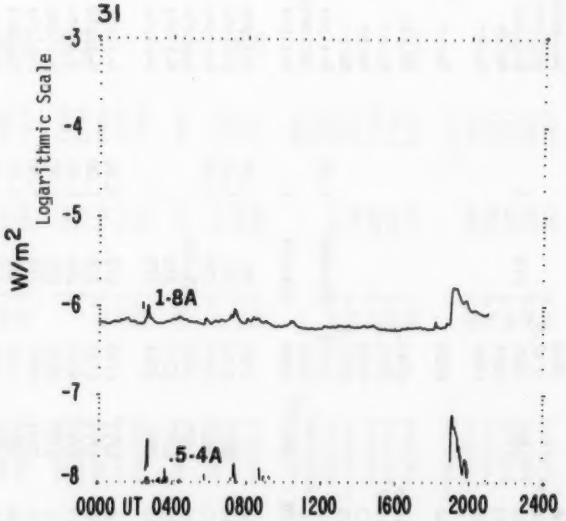
MAY 1981







SMS-GOES X-RAYS



MASS EJECTIONS FROM THE SUN

MAY 1981

Station	Day	Observed UT Start	Max	End	Location RA°	R/R_0	Wavelength	Type of Event
HARV	May 03	1947		1953			Meter	II
DWIN	May 04	0839.5		0840.6			Decimeter	IV
CULG	May 05	2259		2400			Meter	IV
CULG	May 05	2313		2333			Meter	II
KHAR	May 06	0738	0741	0814	273-277	1.00-1.02	H-alpha	S
KHAR	May 06	0831	0832	0846	086	1.00	H-alpha	S
KHAR	May 06	0855	0912	1010	088-093	1.00-1.02	H-alpha	S
KHAR	May 06	0945	0945	1012	286	1.00-1.02	H-alpha	S
KHAR	May 07	1001	1001	1007	278-282	1.00-1.03	H-alpha	S
DWIN	May 07	1006.0		1007.4			Decimeter	IV
DWIN	May 07	1740.5		1744.5			Decimeter	IV
DWIN	May 08	1052		1100			Decimeter	IV
HARV	May 08	1505		1516			Decimeter	IV
DWIN	May 08	1508.0		1512.5			Decimeter	IV
BIGB	May 08	1938	1941	1949	274	1	H-alpha	A
CULG	May 08	2233		2254			Meter	II Herringbone
CULG	May 08	2235		2400			Meter	IV
CULG	May 09	0000		0728			Meter	IV
WEIS	May 10	0718.8		0743.7			30-140	II Harmonic
LEAR	May 10	0718.9		0729.8			Meter	II
CULG	May 10	0719		0728			Meter	II
LEAR	May 10	0723.7		0747.5			Meter	IV
WEND	May 10	0953E		1052D	078-089	1.05	H-alpha	A
HARV	May 10	1302		1334			Decimeter	IV
BIGB	May 10	1423E	1430	1846	078-084	1	H-alpha	A
KHAR	May 11	0630		0701	081	1.00	H-alpha	S
KHAR	May 11	0643	0647	0710	071	1.00	H-alpha	S
KHAR	May 11	0822	0832	0845	278	1.00	H-alpha	S
BIGB	May 11	1754	1829	1901	053-063	1	H-alpha	A
BIGB	May 11	2141	2157	2227	274	1	H-alpha	A
BIGB	May 11	2342	2347	0014	075	1	H-alpha	A
KHAR	May 12	0700	0711	0738	072	0.95	H-alpha	S
KHAR	May 12	0700	0724	0734	286	1.00	H-alpha	S
KHAR	May 12	0743	0757	0822	286	1.00	H-alpha	S or SP
KHAR	May 12	0749	0749	0800	288	1.00	H-alpha	S
KHAR	May 12	0826	0831	0853	275	1.00	H-alpha	S
KHAR	May 12	0858	0917	1005	072	0.95	H-alpha	S
KHAR	May 12	1015	1018	1206	073	0.90	H-alpha	S
KHAR	May 12	1028		1032	072	0.95	H-alpha	S
KHAR	May 12	1055	1057	1106	075	1.00	H-alpha	S
KHAR	May 12	1205		1206	075	1.00	H-alpha	S
KHAR	May 13	0700	0712	0850	072	0.82	H-alpha	S
KHAR	May 13	0700	0718	0757	087	0.86	H-alpha	S
KHAR	May 13	0704	0714	0729	069	0.79	H-alpha	S
KHAR	May 13	0808	0814	0834	279	1.00	H-alpha	S
KHAR	May 13	0812		0824	069	0.79	H-alpha	S
KHAR	May 13	0912	0912	0939	072	0.82	H-alpha	S
DWIN	May 14	0835		0913			Decimeter	IV Fiber bursts
LEAR	May 14	0844.3		0851.2			Meter	II
WEIS	May 14	0844.3		0906.6			30-110	II Harmonic
DWIN	May 15	0621.0		0623.2			Decimeter	IV
KHAR	May 15	0752	0753	0813	070	0.50	H-alpha	S
KHAR	May 15	0958	0959	1015	064	0.71	H-alpha	S
KHAR	May 15	1008	1008	1014	273	0.93	H-alpha	S

MASS EJECTIONS FROM THE SUN

MAY 1981

Station	Day	Observed UT Start	Max	End	Location RA°	R/R_0	Wavelength	Type of Event
KHAR	May 16	0759	0802	0837	058	0.33	H-alpha	S
DWIN	May 16	0812		1000			Decimeter	IV Fast drift
BLEN	May 16	0812.5		1105			Decimeter; meter	IV Fiber bursts
LEAR	May 16	0824.8		0840.7			Meter	II
KHAR	May 16	0855	0954	1057	058	0.33	H-alpha	S
DWIN	May 16	1229.5		1237.5			Decimeter	IV Fast drift
KHAR	May 17	0705		0715	328	0.31	H-alpha	S
KHAR	May 17	1104	1106	1120	286	1.00	H-alpha	S
ABST	May 18	0420	0440	0702	056	0.99	H-alpha	SP
DWIN	May 18	0803		0854			Decimeter	IV Pulsations
WEND	May 18	1018	1024	1044D	282	1.04	H-alpha	A
KHAR	May 18	1022	1026	1051	282	1.00	H-alpha	S
WEND	May 19	0656	0706	0712	104	1.06	H-alpha	A
KHAR	May 19	1116		1122	293	0.68	H-alpha	S
KHAR	May 20	0940	0943	1058	292	0.96	H-alpha	S
KHAR	May 20	0951	0953	1006	292	0.96	H-alpha	S
KHAR	May 20	1109	1109	1125	076	1.00	H-alpha	S
KHAR	May 20	1109		1123	292	0.97	H-alpha	S
KHAR	May 20	1147		1200	076	1.00	H-alpha	S
DWIN	May 20	1736.6		1736.9			Decimeter	IV
KHAR	May 21	0740	0753	0818	077	1.00	H-alpha	S
KHAR	May 21	0756		0818	099	0.90	H-alpha	S
KHAR	May 21	0807		0811	300	0.70	H-alpha	S
KHAR	May 21	1028		1038	287	0.87	H-alpha	S
KHAR	May 21	1029		1039	076	1.00	H-alpha	S
DWIN	May 21	1150		1555			Decimeter	IV Fiber bursts
BLEN	May 21	1221.5		1600			Decimeter; meter	IV Fiber bursts
KHAR	May 22	0803	0817	1200	064	0.72	H-alpha	S
KHAR	May 22	0911	0921	1010	286	0.88	H-alpha	S
KHAR	May 22	0944		0949	066	0.70	H-alpha	S
KHAR	May 23	0715	0720	0938	287	1.00	H-alpha	S
KHAR	May 24	0812		0842	097	1.00	H-alpha	S
KHAR	May 24	0816		0820	279	1.00	H-alpha	S
KHAR	May 24	0828		0842	246	0.95	H-alpha	S
BIGB	May 24	2115	2127	2148	251	1	H-alpha	SP
BIGB	May 24	2354	0009	0047	288	1	H-alpha	A
ABST	May 25	0427	0452	0703	246	1.00	H-alpha	SP
KHAR	May 25	0809	0809	0853	249	1.00	H-alpha	S
WEND	May 25	0832E		1019D	250	1.00	H-alpha	A
WEND	May 25	0855	0913	0945	068-078	1.00-1.10	H-alpha	A
KHAR	May 25	0855	0909	0945	070	1.00	H-alpha	S or SP
KHAR	May 25	0948	0948	1000	249	1.00	H-alpha	S
KHAR	May 25	0948	0948	1000	251	1.00	H-alpha	S
KHAR	May 25	1054	1057	1107	249	1.00	H-alpha	S
KHAR	May 25	1054	1064	1108	097	0.94	H-alpha	S
BIGB	May 25	1756	1806	1832	087	1	H-alpha	A
BIGB	May 25	1951	2008	2019	086	1	H-alpha	A
BIGB	May 25	2238	2245	2305	086	1	H-alpha	A
KHAR	May 26	0708		0730	102	0.83	H-alpha	S
KHAR	May 26	0716		0730	267	0.82	H-alpha	S
KHAR	May 26	1037	1045	1113	068	1.00	H-alpha	S
KHAR	May 27	0808	0808	0910	217	0.50	H-alpha	S
KHAR	May 27	0913		0927	048	0.10	H-alpha	S
KHAR	May 27	1137	1137	1150	106	0.68	H-alpha	S
BIGB	May 27	1446	1506	1540	102	0.57	H-alpha	SP
DWIN	May 28	0605.9		0607.6			Decimeter	IV
ABST	May 29	0430	0540	0657	256	1.00	H-alpha	Q

MASS EJECTIONS FROM THE SUN

MAY 1981

Station	Day	Observed Start	Max	End	Location RA°	R/R_0	Wavelength	Type of Event
KHAR	May 30	0843	0843	0848	166	0.15	H-alpha	S
KHAR	May 30	0903	0903	0903	066	0.57	H-alpha	S
BIGB	May 30	1411	1430	1503	059	0.79	H-alpha	SP
KHAR	May 31	0800		0958	073	1.00	H-alpha	S
KHAR	May 31	1003	1004	1018	280	1.00	H-alpha	S
KHAR	May 31	1003	1035	1045	073	1.00	H-alpha	S

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
ABST = Abastumani
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

NOTE: Because only a small fraction of the data taken by satellite-borne coronagraph had been analyzed at the time this table was assembled, many events are defined solely by ground-based observatory reports.

SGD 447 Part II (Comprehensive)

FEBRUARY 1980 DATA

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Intervals of No Flare Patrol Observation (UNIVAC computer delays)	

Hα SOLAR FLARES

FEBRUARY 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS AREA Millionths of Disk	CORR AREA Sq. Deg.	
643 CULG	01	0106	0108	0116	S11	E80	.982	16638	7.0	10	-F		C	0108	50		
644 YUNN	01	0155	0157	0200	N11	E35	.626	16632	3.7	5	-N		C		32	.4	
GRP81645	01	0200+1	0203 0306	0316	S13	E47	.729	16631	4.6	76	1F						
PURP	01	0200	0225	0316	S13	E48	.741	16631	4.7	76	1F		C				
YUNN	01	0201	0203	0210	S13	E46	.717	16631	4.5	9	-N		C		64	.9	
YUNN	01	0305	0306	0316	S13	E47	.729	16631	4.7	11	1N		C		177	2.6	
646 PURP	01	0340	0340	0344	S12	E72	.947	16638	6.6	4	-F		C				
GRP81647	01	0350+1	0355+6	0428	N12	E30	.571	16627	3.4	38	2N						E
PURP	01	0350	0355	0418	N12	E30	.571	16632	3.4	28	2N		C	0355	679	9.3	
YUNN	01	0351	0401	0428	N12	E29	.559	16627	3.3	37	2N		C		723	8.8	E
MITK	01	0406E		0429	N13	E33	.614	16632	3.6	230	1F		C	0406	180	2.3	E
648 YUNN	01	0443	0446	0510	S14	E46	.741	16631	4.6	27	2N		C		193	2.9	E
	IMP.1 VD : PURP MITK																
GRP81649	01	0552	0644 0728+1	0735	S14	E49	.753	16631	4.9	103	1N				230	3.5	FK
YUNN	01	0552	0555	0601	S15	E48	.742	16631	4.8	9	-N		C		80	1.2	
ABST	01	0557E	0729	0843	S13	E50	.763	16631	5.0	166D	1N		P	0728	306	4.8	FK
YUNN	01	0640	0648	0649	S14	E48	.741	16631	4.9	9	-N		C		113	1.7	
YUNN	01	0726	0729	0735	S14	E46	.718	16631	4.8	9	1N		C		161	2.5	
650 ABST	01	0609	0613	0634	N09	E35	.615	16632	3.9	25	2F		C	0613	244	3.1	E
	IMP.1 VD : PURP YUNN MITK CULG																
GRP81651	01	0825+1	0827+2	0905	S21	W25	.477	16622	30.5	80	1N				410	4.7	EGH
BUCA	01	0825		0910	S20	W26	.483	16622	3.3	95	1N		C	0827	322	3.8	EG
YUNN	01	0825E	0827	0900	S21	W24	.466	16622	3.2	350	2N		C		562	6.4	FH
ABST	01	0826	0829	08430	S21	W25	.477	16622	3.2	170	1N		P	0829	349	4.1	EG
652 ABST	01	0828	0830	0836	N11	E30	.568	16632	3.6	8	-F		C	0830	157	2.0	E
653 ABST	01	0839	0840	08430	N17	E24	.545	16627	3.2	40	-F		P	0840	131	1.6	E
654 YUNN	01	0841	0843	08500	S14	E47	.730	16631	4.9	90	2N		C		290	4.3	
	IMP.1 VD : ABST																
655 YUNN	01	1013	1016	1030	S14	E46	.718	16631	4.9	17	1N		C		193	2.5	
	01	1040	1256	NO FLARE PATROL													
	01	1124	1256	NO FLARE PATROL													
	01	1302	1303	NO FLARE PATROL													
	01	1310	1312	NO FLARE PATROL													
656 RAMY	01	1429	1435	1435	N13	E27	.543	16632	3.6	6	-F	3	C		22		
GRP81657	01	1451+2	1503	1543	S12	E40	.642	16631	4.6	52	-N						
RAMY	01	1451	1503	1543	S12	E41	.655	16631	4.7	52	-N	3	C		90		
KANZ	01	1453		15070	S12	E39	.629	16631	4.5	140	-N	2					
658 RAMY	01	1507	1522	1530	N13	E27	.543	16632	3.7	23	-F	3	C		26		
659 RAMY	01	1555	1629	1641	N13	E27	.543	16632	3.7	46	-F	3	C		30		
660 RAMY	01	1643	1645	1652	N11	E23	.477	16632	3.4	9	-F	3	C		61		
661 RAMY	01	1647	1647	1655	S15	E45	.708	16631	5.1	8	-F	3	C		30		
GRP81662	01	1654+2	1700+3	1734	N05	00	.191	16625	1.7	40	-N				110	1.1	
BIGB	01	1654	1700	1805	N05	E00	.191	16625	1.7	71	-N	2	C	1700	140	1.4	
RAMY	01	1656	1703	1734	N05	E00	.191	16625	1.7	38	-N	3	C		85		
663 RAMY	01	1659	1706	1722	S15	E45	.708	16631	5.1	23	-F	3	C		27		
GRP81664	01	1726+3	1732 1742+2	1759	S12	E39	.629	16631	4.7	33	-B						
RAMY	01	1726	1732	1739	S12	E40	.642	16631	4.7	13	-N	3	C		21		
BIGB	01	1729	1740	1835	S12	E39	.629	16631	4.7	66	-B	1	C	1740	130	1.7	
RAMY	01	1741	1742	1759	S11	E39	.627	16631	4.7	18	-B	3	C		45		

Hα SOLAR FLARES

FEBRUARY 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	
GRP81665	02	0245E	0245 0252	0258	N17	E47	.787	16634	5.6	13	1N		C				F
YUNN	02	0245E	0245	0251	N16	E46	.773	16634	5.6	6D	1N		C		129	2.1	
CULG	02	0246E	0252	0305	N19	E48	.804	16634	5.7	19D	-N		P	0252	90	1.3	F
666 CULG	02	0324	0326	0335U	N03	W13	.273	16625	3.1	11D	-F		C	0326	80	.8	
667 YUNN	02	0440	0442	0446	N19	E30	.626	16633	4.4	6	-N		C		96	1.2	
GRP81668	02	0557+2	0600+1	0619	S16	E37	.610	16631	5.0	22	-N				150	1.9	EK
YUNN	02	0557	0600	0612	S17	E37	.613	16631	5.0	15	1N	*	C		193	2.5	E
ABST	02	0559	0601	0625	S15	E37	.607	16631	5.0	26	-F	*	C	0601	114	1.5	EK
GRP81669	02	0557+3	0603+1	0610	N18	E47	.791	16634	5.8	13	-N				70	1.1	DK
ABST	02	0557E	0604	0643	N19	E48	.804	16634	5.8	46D	-N	*	P	0604	87	1.5	DK
YUNN	02	0600	0603	0610	N17	E47	.787	16634	5.8	10	-N	*	C		88	.9	
670 ABST	02	0558	0600	0607	N05	W12	.281	16625	3.1	9	-N		C	0600	131	1.4	DJ
671 ABST	02	0644	0646	0703	N18	W15	.474	16626	3.4	19	?N		C	0646	262	3.1	F
	IMP.1 VD : YUNN PURP MITK																
672 CULG	02	0703E	0703E	0714D	S16	E38	.623	16631	5.1	11D	-N		P	0703	140	1.8	F
GRP81673	02	0703+8	0710+5	0758	N05	W10	.258	16625	1.5	55	1N				290	3.0	
CULG	02	0703E	0714D	0714D	N05	W10	.258	16625	3.0	11D	1N	*	P	0714	210	2.1	F
ABST	02	0704	0710	0840D	N05	W08	.236	16625	2.9	96D	1N	*	P	0710	402	4.3	E
YUNN	02	0708	0715	0800	N05	W09	.247	16625	3.0	52	1N	*	C		353	4.6	
CATA	02	0710E	0710	0755D	N04	W11	.257	16625	3.1	45D	1B	*		0710	197	2.1	
PURP	02	0711	0715	0730	N04	W11	.257	16625	3.1	19	1N	*	C				
674 YUNN	02	0745	0751	0801	N17	E46	.777	16634	5.8	16	-N		C		88	.8	
GRP81675	02	0755+0	0759+5	0812	S17	E36	.600	16631	5.0	17	-N				140	1.5	E
PURP	02	0755	0800	0812	S17	E38	.625	16631	5.2	17	-F		C				E
YUNN	02	0755	0801	0801D	S17	E36	.600	16631	5.0	6D	1N		C		193	2.2	
ABST	02	0759E	0759	0810D	S16	E36	.597	16631	5.0	11D	-N		P	0759	96	1.2	E
GRP81676	02	0817>9	0822 0833	0836	N19	E46	.786	16634	5.8	19	-F						E
ABST	02	0817E	0822	0835	N19	E46	.786	16634	5.8	18D	-F		P	0822	105	1.5	E
MONT	02	0832	0833	0836	N19	E47	.795	16634	5.9	4	-F		C	0833	50		E
677 ABST	02	0821E	0823	0835	N18	W01	.408	16627	2.4	14D	-N		P	0823	157	1.8	E
GRP81678	02	0836+2	0841+0	0845	N17	E01	.393	16627	2.4	9	-N				70	.8	E
MONT	02	0836	0841	0844	N18	E01	.408	16627	2.4	8	-B		C	0841	60		E
YUNN	02	0838	0841	0846	N17	E01	.393	16627	2.4	8	-N		C		80	.9	
679 YUNN	02	0916	0920	0937	S18	E36	.603	16631	5.1	21	-N		C		90	1.0	EK
680 MONT	02	1026	1039	1110	N15	W11	.403	16626	3.3	44	-F		C	1039	60		E
681 MONT	02	1109	1113	1128	S16	E34	.570	16631	5.0	19	-N		C	1113	150		
	02	1200	1204	NO FLARE PATROL													
GRP81682	02	1236+5	1243+3	1304	S16	E32	.543	16631	4.9	28	-B						
LVOV	02	1236	1243	1311	S17	E31	.512	16631	4.8	35	1N		C	1243	500	3.1	E
RAMY	02	1241	1246	1256	S16	E33	.556	16631	5.0	15	-B	3	C		88		D
683 RAMY	02	1247	1257	1313	N20	E25	.586	16633	4.4	26	-F	3	C		39		
	02	1340	1353	NO FLARE PATROL													
684 RAMY	02	1354	1355	1400	N20	E26	.595	16633	4.5	6	-F	3	C		26		
GRP81685	02	1415	1416	1425	S12	E29	.488	16631	4.8	10	-N						E
RAMY	02	1415	1416	1422	S13	E29	.491	16631	4.8	7	-N	3	C		49		
KANZ	02	1420F		1427	S12	E29	.488	16631	4.8	7D	-F	1					E
686 RAMY	02	1512	1523	1528	S15	E29	.497	16631	4.8	16	-N	3	C		60		
	02	1627	1632	NO FLARE PATROL													
687 BIGB	02	1632E	1632U	1724	S16	E31	.529	16631	5.0	52D	-B	1	P	1632	100	1.2	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA (Mil. of Disk)	CORR AREA Sq. Deg.	
688 BIGB	02	1753	1755	1811	N18	W04	.413	16627	3.0	18	-B	2	C	1755	110	1.1	
689 HOLL	02	1914E	1915U	1935	S16	E30	.515	16631	5.1	21D	-N	3	C		103		
690 HOLL	02	2035	2035	2043	N15	W07	.378	16627	3.4	8	-F	3	C		58		
691 CULG	02	2310	2314U	2320	N18	W07	.424	16627	3.5	10	-N		C	2314	140	1.4	F
692 CULG	02	2321	2328	2340	S11	W85	.994	16618	9.3	19	-F		C	2328	40		
693 CULG	03	0010	0014U	0040U	N18	W08	.429	16627	3.0	30D	?N		C	0014	210	2.1	
	IMP.1 NO : HOLL MITK PURP																
694 CULG	03	0030	0042U	0047	N18	W27	.587	16626	5.0	17	-F		C	0042	60	.7	T
695 PURP	03	0103	0104	0108	N04	W20	.381	16625	4.5	5	-F		C				
696 YUMN	03	0103E	0105	0115	N11	E01	.295	16627	3.1	12D	-N	*	C		48	.5	
GRP81697	03	0139+2	0140+1	0142	N17	W08	.414	16627	2.5	3	-N				50	.5	
VORO	03	0139	0140	0142	N15	W09	.390	16627	3.7	3	-N		C	0140	72	.8	E
YUMN	03	0140	0141	0144	N17	W08	.414	16627	3.7	4	-N		C		32	.4	
PURP	03	0141	0141	0142	N17	W08	.414	16627	3.7	1	-F		C				D
698 VORO	03	0220	0221	0224	N06	W20	.347	16625	4.0	4	-N		C	0221	63	.7	DJL
699 YUMN	03	0244	0246	0255	S16	E26	.459	16631	5.1	11	-N		C		127	1.5	E
700 PURP	03	0349	0349	0349D	N17	W09	.419	16627	3.8		-F		C				E
701 YUMN	03	0357	0400	0405	N17	W09	.419	16627	3.8	8	-N		C		32	.4	E
702 ABST	03	0558	0602	0610	N18	W11	.446	16627	4.1	12	-F		P	0602	114	1.3	EJ
GRP81703	03	0642+3	0648+8	0716	S11	E13	.237	16631	4.3	34	-F				80	.8	DJ
ABST	03	0642E	0652	0759	S12	E15	.274	16631	4.4	77D	-N		P	0652	87	.9	DJ
ABST	03	0645	0648	0716	S10	E12	.214	16631	4.2	31	-F		C	0648	79	.8	DJ
GRP81704	03	0740	0742+2	0818	N15	E01	.361	16627	3.4	38	-N						
ABST	03	0740	0742	0757	N16	E04	.383	16632	3.6	17	-F		C	0742	87	1.0	D
ABST	03	0740	0744	0818	N15	W02	.362	16627	3.5	38	-N		C	0744	87	1.0	D
705 YUMN	03	1005	1013	1040D	N08	W26	.493	16625	5.4	35D	?N		C		723	9.2	
706 ATHN	03	1010E	1012	1102	N13	W10	.358	16627	4.2	52D	?B	3	V	1012	721	7.5	
	IMP.2 NO : YUMN																
707 KANZ	03	1246	1254	1302	N06	W28	.507	16625	5.6	16	-F	2					
GRP81708	03	1318>9	1359	1516	S15	E15	.295	16631	4.7	118	1B				210	2.2	E
			1431														
KANZ	03	1318	1341	1457D	S14	E15	.288	16631	4.7	99D	2B	2					
ATHN	03	1329E	1330	1342D	S18	E13	.459	16633	4.5	13D	1B	3	V	1330	262	2.8	
RAMY	03	1338	1359	1514	S15	E17	.328	16631	4.8	96	1B	3	C		411		
HUAN	03	1419E		1517D	S15	E16	.310	16631	4.8	58D	1N	1	P	1430	220	2.4	E
HOLL	03	1428E	1431U	1512D	S15	E15	.295	16631	4.7	44D	1N	2	C		214		
	03	1536	1541	NO FLARE PATROL													
709 HOLL	03	1544	1547	1554	S16	E14	.291	16631	4.7	10	-F	3	C		36		
710 HOLL	03	1558	1559	1604	N04	W32	.552	16625	6.1	6	-F	3	C		23		
	03	1904	1927	NO FLARE PATROL													
	03	2016	2224	NO FLARE PATROL													
	03	2253	2254	NO FLARE PATROL													
711 CULG	03	2256	2256E	2301	S15	E13	.268	16631	4.9	5	-F		P	2256	30	.3	
712 CULG	03	2306	2309E	2309D	S16	E12	.265	16631	4.9	3D	-F		P	2309	110	1.1	
713 CULG	03	2344	2349	0013	N18	W18	.500	16627	5.3	29	-N		C	2348	140	1.5	K
714 CULG	03	2350	2353	0002D	S18	E15	.323	16631	5.1	12D	-N		P	2353	170	1.7	
715 CULG	04	0021	0029	0046	N19	W36	.689	16626	6.7	25	-N		C	0029	140	2.0	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
716 VORO	04	0024	0026	0033	N08	W39	.661	16625	6.9	9	-N		C	0026	81	1.2	EJL
GRP81717	04	0106+3	0110+0	0118	S18	E15	.322	16631	5.2	12	-F				110	1.2	D
CULG	04	0106	0110	0123	S18	E15	.322	16631	5.2	17	-F		C	0110	130	1.3	
VORO	04	0109	0110	0113	S18	E16	.335	16631	5.2	4	-N		C	0110	90	1.0	D
718 CULG	04	0111	0117	0125	S22	W59	.857	16622	8.5	14	-N		C	0117	50	1.0	
GRP81719	04	0219	0232	0254	N18	E19	.510	16634	5.5	35	-N						EU
CULG	04	0219	0232	0300U	N18	E19	.510	16634	5.5	41D	-N		C	0232	160	1.8	U
VORO	04	0238E		0247	N18	E19	.510	16634	5.5	9D	-F		P	0240	81	.9	E
720 YUNN	04	0409E	0409	0415	S15	E10	.228	16631	4.9	6D	-N		C		32	.3	
GRP81721	04	0451	0453	0457	S15	E11	.241	16631	5.0	6	-N				50	.5	E
CULG	04	0451	0453	0457	S15	E10	.228	16631	5.0	6	-N		C	0453	70	.7	
YUNN	04	0454E	0454	0454D	S15	E12	.254	16631	5.1		-N		P		32	.3	E
GRP81722	04	0500+1	0506+0	0512	N14	W22	.496	16627	2.6	12	-N				50	.6	
CULG	04	0500	0506U	0512D	N15	W23	.517	16627	5.9	12D	-N		P	0506	70	.8	
YUNN	04	0501	0506	0511	N13	W22	.486	16627	5.9	10	-N		C		32	.4	
	04	0551	0557	NO FLARE PATROL													
	04	0638	0640	NO FLARE PATROL													
723 YUNN	04	0706	0709	0714	N16	W10	.412	16627	5.0	8	-N		C		80	.9	
724 YUNN	04	0710	0711	0721	N20	E01	.442	16633	4.4	11	-N		C		113	1.2	
725 KANZ	04	0822	0826	0833	N20	E02	.443	16633	4.5	11	-F	2					
	04	0908	0930	NO FLARE PATROL													
726 KANZ	04	1124	1158	1206	N19	E01	.426	16633	4.5	42	-F	2					
GRP81727	04	1338>9	1358+4	1434	N15	W17	.455	16627	3.3	56	1B						
KANZ	04	1338	1402	1435	N16	W18	.477	16627	5.9	57	1B	2					
RAMY	04	1351	1358	1432	N15	W17	.455	16627	5.9	41	2N	3	C		525		
GRP81728	04	1503+1	1506+5	1526	N19	W03	.429	16633	4.4	23	-F				100	1.1	
HOLL	04	1503	1510	1528	N19	W03	.429	16633	4.9	25	-F	3	C		109		
KANZ	04	1503	1511	1515D	N19	W04	.431	16633	4.9	12D	-N	2					
RAMY	04	1504	1506	1524	N19	W03	.429	16633	4.9	20	-F	3	C		97		
GRP81729	04	1546+2	1549 1603	1630	N11	W22	.467	16627	3.0	44	-F						
RAMY	04	1546	1549	1640	N10	W18	.410	16627	6.0	54	-F	3	C		117		
HOLL	04	1548	1603	1619	N13	W27	.545	16627	6.7	31	-F	3	C		21		
GRP81730	04	1610+3	1613+2	1621	S17	E06	.213	16631	5.1	11	-F				50	.5	
RAMY	04	1610	1613	1622	S18	E07	.235	16631	5.2	12	-F	3	C		63		
HOLL	04	1613	1615	1619	S16	E05	.190	16631	5.1	6	-F	3	C		36		
731 HOLL	04	1612	1617	1622	N17	E12	.440	16634	5.6	10	-F	3	C		22		
GRP81732	04	1705+3	1710+1	1719	N15	W46	.769	16626	1.3	14	-F				30	.5	
RAMY	04	1705	1710	1719	N18	W45	.772	16626	8.1	14	-F	3	C		37		
HOLL	04	1708	1711	1718	N13	W48	.782	16626	8.3	10	-F	3	C		24		
GRP81733	04	1709+3	1713+2 1722	1826	N18	E10	.441	16634	5.5	77	1B				250	2.8	
RAMY	04	1709	1715	1733	N18	E09	.435	16634	5.4	24	1B	3	C		270		
BIGB	04	1709	1722	2003	N19	E04	.431	16634	5.0	174	1N	2	C	1722	300	3.1	
HOLL	04	1712	1713	1826	N18	E12	.453	16634	5.6	74	1B	3	C		230		
RAMY	04	1739	1741	1758	N19	E11	.461	16634	5.6	19	-N	3	C		94		
GRP81734	04	1709+2	1730+3	1923	N19	00	.426	16633	4.7	134	1N				260	2.9	
RAMY	04	1709	1730	1936D	N19	E01	.426	16634	4.8	147D	1N	3	C		260		
HOLL	04	1711	1733	1734D	N20	W02	.443	16633	4.9	25D	1N	3	C		265		
HOLL	04	1711	1735	1909	N20	W02	.443	16633	4.9	118	1N	3	C		254		
735 HOLL	04	1729	1735	1753	S12	E26	.443	16638	6.7	24	-F	3	C		86		
736 RAMY	04	1812	1812	1913	S13	E82	.987	16644	10.9	61	-N	3	C				

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY			CONF.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.	
GRP81737	04	1859+2	1905+4 1915	1946	N16	W43	.743	16626	1.6	47	-F				110	1.6	
HOLL	04	1859	1909	1948	N16	W43	.743	16626	8.0	49	-F	*	C		136		
BIGS	04	1900	1905	1944	N18	W42	.698	16625	7.9	44	-N	2	C	1905	90	1.2	
RAMY	04	1901	1915	1943D	N16	W49	.802	16626	8.5	42D	-F	*	C		58		
GRP81738	04	1911+1	1912+5	1933	N15	W24	.528	16627	3.0	22	-F				35	.4	
RAMY	04	1911	1912	1941	N14	W24	.510	16627	6.6	30	-F	3	C		42		
HOLL	04	1912	1917	1925	N16	W25	.548	16627	6.7	13	-N	3	C		33		
739 HOLL	04	1942	1943	1950	S15	W51	.775	16624	8.6	8	-F	3	C		44		
740 HOLL	04	2256	2308	2345D	N26	E53	.872	16639	6.9	490	-N	3	C		88		
741 HOLL	04	2327	2328	2335	N18	E08	.030	16630	5.6	8	-N	3	C		75		
GRP81742	05	0203	0232+5	0248	S12	E76	.966	16644	10.8	45	1F						
PURP	05	0203	0232	0248	S13	E84	.992	16644	11.4	45	1F		C				
YUNY	05	0235E	0235	0239	S12	E76	.966	16644	10.8	4D	1N		C		80		
PALE	05	0235E	0237	0255	S10	E76	.967	16644	10.8	200	-F	2	C		20		
GRP81743	05	0237+0	0242	0300	N12	W35	.638	16627	2.5	23	-F						
YUNY	05	0237	0241	0241D	N13	W34	.628	16627	7.7	4D	-N		C		80	1.0	
PALE	05	0237	0242	0300	N11	W36	.640	16627	7.8	23	-F	2	C		33		
744 YUNY	05	0310	0312	0315	N15	W35	.652	16627	7.8	5	-N		C		32	.4	
GRP81745	05	0656+2	0700+2	0711	S12	E74	.957	16644	10.6	15	-N						EJ
ABST	05	0656	0700	0710	S10	E75	.962	16644	10.9	14	1F		C	0700	218		EJ
YUNY	05	0658	0702	0711	S14	E74	.956	16644	10.8	13	-N		C		88		
746 ABST	05	0704E	0708	0723	S15	W03	.160	16631	5.5	19D	-F		P	0708	87	.9	DJ
GRP81747	05	0725>9	0730	0750	S13	W08	.180	16631	4.7	25	-N						DJ
ABST	05	0725	0730	0750	S11	W12	.221	16631	6.2	25	-N		P	0730	87	.9	DJ
PURP	05	0747	0747	0747D	S16	W05	.189	16631	5.7		1N		P				
GRP81748	05	0746+6	0749+7	0801	S13	E80	.981	16644	11.3	15	-N						DJ
ABST	05	0746	0749	0758	S12	E84	.992	16647	11.6	12	1F		C	0749	140		DJ
ATHN	05	0748E	0750	0806	S17	E75	.977	16645	10.9	18D	-F	2	V	0750	82	2.9	
MANI	05	0750E	0750U	0800D	S13	E79	.978	16648	11.3	10D	-N	3	V		60	1.0	
CULG	05	0751	0756	0810D	S11	E85	.994	16648	11.7	19D	1N		P	0756	80		
YUNY	05	0752	0759	0756	S14	E76	.966	16644	11.0	4	-N		C		32		
749 ABST	05	0806	0809	0823D	N23	W12	.523	16633	6.2	17D	-N		P	0809	114	1.4	E
750 ABST	05	0814	0816	0841D	N18	E06	.423	16638	5.8	27D	-F		P	0816	114	1.3	E
751 ABST	05	0818E	0833	0845D	S09	E75	.963	16644	11.0	27D	2N		P	0833	218		FJ
	IMP.1	WD : YUNY	CATA														
GRP81752	05	0959+1	1003 1010	1029	N25	E47	.823	16639	8.9	30	-B						
ATHN	05	0959E	1003	1016	N23	E47	.814	16639	8.9	19D	-N	2	V	1003	98	1.6	
CATA	05	1000	1010	1040	N28	E48	.844	16639	9.0	40	1B	2		1010	225	4.3	
753 CATA	05	1245	1250	1255D	N28	E47	.837	16639	9.1	10D	1B	2		1250	197	3.7	
	05	1411	1414	NO FLARE PATROL													
	05	1439	1440	NO FLARE PATROL													
754 HUAY	05	1546		1557	S26	W43	.713	16642	8.9	11	-F	1	C	1552	50	.7	E
GRP81755	05	1727	1727	1810	S17	W09	.240	16631	5.1	93	1B						
HOLL	05	1727	1727	1805	S17	W09	.240	16631	6.4	38	1B	3	C		304		
PALE	05	1740E	1740U	1814	S17	W10	.250	16631	6.5	34D	1B	2	C		321		
756 CULG	05	2019	2022	2031	N23	W18	.562	16633	7.2	12	-N		C	2022	70	.8	H
GRP81757	05	2032>9	2045+4 2158	2235	S11	E69	.929	16648	11.0	123	-B						FH
CULG	05	2032U	2046U	2116U	S12	E72	.946	16644	11.3	84D	1N		C	2046	200	4.9	F
HOLL	05	2041	2045	2057	S11	E69	.929	16648	11.0	16	-B	2	C		63		
PALE	05	2044	2049	2255	S13	E73	.951	16648	11.3	131	-B	2	C		30		
CULG	05	2129	2158	2235	S08	E65	.902	16648	10.8	66	1N		C	2158	180	3.5	H
758 PALE	05	2300	2300	2310	S19	W11	.286	16631	6.8	10	-F	3	C		85		D

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA MIX of Obs	CORR AREA Sq Deg	
GRP81759	05	2307+4	2313 2331+4	2359	S13	E69	.928	16644	11.1	52	-N				80		D
HOLL	05	2307	2313	2356	S14	E69	.928	16644	11.1	49	-N	2	C		60		
PALE	05	2311	2331	2359	S13	E67	.915	16644	11.0	48	-N	3	C		71		
CULG	05	2327	2335	0005	S03	E69	.932	16644	11.2	38	1F		C	2335	100	2.5	D
760 VORO	06	0015	0017	0034	S16	E68	.922	16644	11.1	19	-F		C	0018	99		EJ
761 CULG	06	0042	0046	0100	N13	W67	.935	16626	11.1	18	?N		C	0046	80	2.0	
	IMP.1 VD : MITK VORO PURP																
762 VORO	06	0046	0046	0055	S16	E68	.922	16644	11.1	9	-N		C	0053	134		EJ
763 VORO	06	0101	0108	0128	S17	E65	.901	16644	10.9	27	-N		C	0108	90		DJ
764 VORO	06	0138	0146	0210	N26	E40	.772	16639	9.1	32	?F		C	0146	269	4.2	E
	IMP.1 VD : MITK PURP CULG																
765 VORO	06	0200	0201	0205	S16	E68	.922	16644	11.2	5	-F		C	0201	134		EJ
GRP81766	06	0302>9	0308 0319+2	0357	S13	E67	.915	16644	11.2	55	1N						
VORO	06	0302	0308	03450	S14	E69	.928	16644	11.3	430	1N		C	0308	224		
CULG	06	0313	0319	0343	S13	E71	.940	16647	11.5	30	1N		C	0319	140		
CULG	06	0317	0321	0357	S10	E61	.870	16644	10.7	40	-F		C	0321	80	1.6	
	06	0402	0415	NO FLARE PATROL													
767 CULG	06	0429	0435	0441	S10	E60	.861	16644	10.7	12	1N		C	0435	120	2.3	F
768 CULG	06	0458	0502	0523	S13	W27	.460	16631	8.2	25	-N		C	0502	80	.9	
769 CULG	06	0517	0523	0539	S11	E69	.929	16644	11.4	22	1N		C	0523	200		
GRP81770	06	0602>9	0612+2	0626	S14	W20	.360	16631	8.8	24	-N						EHJ
CULG	06	0602	0612	0627	S13	W28	.475	16631	8.4	25	-N		C	0612	100	1.1	H
ABST	06	0608	0613	0624	S14	W27	.464	16631	8.3	16	-N		C	0613	87	1.0	DJ
ABST	06	0608	0613	0620	S16	W13	.275	16631	7.2	12	-F		C	0613	140	1.5	EJ
YUNY	06	0612	0614	0614D	S14	W20	.360	16631	7.8	2D	-N		C		88	.5	
GRP81771	06	0628+4	0630 0648	0707	S09	E58	.843	16644	10.6	39	-N						EK
ABST	06	0626	0630	0635	S14	E56	.824	16644	10.5	7	-N		C	0630	87	1.5	D
CULG	06	0632	0651	0709	S09	E61	.870	16644	10.8	37	-N		C	0651	80	1.5	
ABST	06	0642	0648	0705	S05	E56	.826	16644	10.5	23	-N		C	0648	105	1.8	EK
772 ABST	06	0700	0707	0740	N14	W52	.824	16627	10.2	80	-F		C	0707	70	1.2	DJ
773 CULG	06	0709	0711	0722	S13	W28	.475	16631	8.4	13	-N		C	0711	50	.6	T
GRP81774	06	0738+2	0740+2	0749	S14	W14	.271	16631	5.3	11	-F						EHJ
YUNY	06	0738	0740	0745	S14	W14	.271	16631	7.4	7	-N		C		32	.3	FH
ABST	06	0740	0742	0753	S14	W18	.271	16631	7.4	13	-F		C	0742	140	1.3	EJ
GRP81775	06	0913+0	0916+0	0931	S15	W16	.308	16631	5.2	18	-N				90	.9	E
YUNY	06	0913	0916	0930	S15	W16	.308	16631	7.6	17	-N		C		80	.8	
MONT	06	0913	0916	0939	S15	W15	.294	16631	7.5	26	-N		C	0916	100		E
KANZ	06	0921E		0931	S15	W17	.322	16631	7.7	10D	-N	1					
GRP81776	06	1020+5	1038 1051	1227	S18	W37	.618	16630	3.7	127	2N						FGS
KANZ	06	1020	1051	1213	S18	W37	.618	16630	9.2	113	1N	2					FG
MONT	06	1020	1038	1213D	S17	W39	.637	16630	9.4	115D	2N		C	1038	600		GS
CATA	06	1025	1115	1240	S18	W30	.522	16631	8.7	135	2N	1		1115	787	9.5	
GRP81777	06	1058+1	1102+1	1111	S20	W17	.305	16631	5.2	13	-F						E
MONT	06	1058	1102	1111	S19	W17	.354	16631	7.7	13	-F		C	1102	50		E
KANZ	06	1059	1103	1111	S21	W18	.387	16631	7.8	12	-N	2					E
778 KANZ	06	1150	1158	1202	N17	W72	.965	16626	11.9	12	-F	1					
779 MONT	06	1153	1157	1213D	S15	W16	.308	16631	7.7	20D	-F		C	1157	60		E
780 KANZ	06	1213	1216	1224	N27	E34	.730	16639	9.1	11	-F	1					
781 KANZ	06	1220	1225	1246	S11	W23	.398	16631	8.2	26	-N	1					

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX WEB. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
782 KANZ	06	1250	1307	1325	N15	W52	.827	16627	10.4	35	-N	1					
	06	1524	1910	NO FLARE PATROL													
783 HOLL	06	1605	1607	1617	S12	E61	.869	16648	11.2	12	-N	3	C		51		
784 HOLL	06	1622	1628	1640	S17	W19	.365	16631	8.1	18	-N	3	C		45		
785 HOLL	06	1721	1750	1823	S12	E60	.861	16648	11.2	62	1B	3	C		162		D
	06	1917	2013	NO FLARE PATROL													
786 HOLL	06	2013	2013U	2019D	S12	E52	.783	16644	10.7	6D	-B	2	C		47		
787 CULG	06	2027	2029	2040	S09	E51	.772	16644	10.7	13	-B		C	2029	120	1.9	
788 CULG	06	2204	2206	2212	S14	W31	.521	16631	9.2	8	-F		C	2206	40	.5	
789 CULG	06	2211	2353U	0241	S12	E68	.922	16647	12.0	270	2F		C	2353	120		H
	IMP.1 NO : BIGB VORO MITK																
790 CULG	06	2226	2229	2240	S26	W61	.876	16642	11.5	14	-F		C	2229	40	.8	
GRP81791	06	2250+1	2253 2300	2308	S11	W30	.500	16631	9.7	18	-N						F
CULG	06	2250	2300	2344	S11	W32	.529	16631	9.4	54	1N		C	2300	300	5.5	F
BIGB	06	2251	2253	2308	S11	W28	.470	16631	9.1	17	-N	2	C	2253	100	1.2	
792 CULG	06	2311	2315	2332	N11	W55	.843	16627	11.1	21	-N		C	2315	80	.7	
793 CULG	06	2346	2402	0058	N18	W17	.894	16634	8.5	72	-F		C	2402	80	.9	
794 CULG	06	2352	2358	0010	N10	W73	.964	16625	12.5	18	-F		C	2358	30		
GRP81795	07	0000+4	0007 0017	0034	S13	W25	.030	16631	9.1	34	-N						E
CULG	07	0000	0017	0104U	S12	W27	.057	16631	9.0	64D	-N		C	0017	140	1.5	
VORO	07	0004	0007	0034	S14	W24	.019	16631	8.8	30	-N		C	0007	116	1.3	E
GRP81796	07	0145+2	0147+3	0154	S12	W30	.502	16631	9.8	9	-N				110	1.3	E
VORO	07	0145	0147	0154	S12	W30	.502	16631	9.3	9	-N		C	0147	106	1.2	E
YUNN	07	0147	0150	0153	S10	W30	.498	16631	9.3	6	-N		C		173	2.0	E
PALE	07	0147E	0148U	0153D	S13	W30	.504	16631	9.3	6D	-F	2	C		63		D
GRP81797	07	0300+4	0306+2	0336	S18	W28	.495	16631	9.0	36	1N				180	2.1	E
VORO	07	0300	0306	0528D	S18	W28	.495	16631	9.2	28D	1F		P	0306	197	2.3	E
PALE	07	0303E	0309	0341	S18	W28	.495	16631	9.2	38D	-N	2	C		139		D
YUNN	07	0304	0308	0330	S16	W28	.486	16631	9.2	26	1N		C		188	2.2	E
798 CULG	07	0403	0406	0421	S10	W30	.498	16631	9.4	18	-N		C	0406	80	.9	H
799 CULG	07	0440	0451	0504	S10	E48	.739	16648	10.8	24	-N		C	0451	120	1.7	
800 CULG	07	0501	0521	0604	N10	W80	.989	16626	13.2	63	1F		C	0521	120		
801 ABST	07	0655E	0656	0704	S15	E54	.805	16648	11.3	9D	-N		P	0656	79	1.3	BDJ
GRP81802	07	0656+3	0704+6 0721	0743	S21	W27	.499	16631	9.3	87	2N				460	5.3	IJV
CULG	07	0656	0705	0826	S26	W26	.524	16631	9.2	90	2N		C	0705	680	8.2	VIF
ABST	07	0657	0704	0803D	S23	W29	.537	16631	9.5	66D	2N		P	0704	454	5.5	FJ
TACH	07	0659	0704	0720	S23	W27	.513	16631	9.3	21	2N		C	0704	469	5.6	F
ATHN	07	0708E	0710	0735	S18	W26	.468	16631	9.2	27D	1B	3	V	0710	242	3.0	
ABST	07	0717	0721	0731	S14	W34	.563	16631	9.9	14	1F		C	0721	175	2.2	DJ
GRP81803	07	0713+7	0722+8	0744	S11	E46	.715	16648	10.8	31	1N				170	2.5	EJ
ABST	07	0713E	0722	0743	S11	E45	.703	16644	10.7	30D	1N		P	0722	157	2.2	F
CULG	07	0715	0726	0758	S10	E45	.703	16644	10.7	43	1N		C	0726	200	2.8	
ATHN	07	0720E	0730	0751	S12	E40	.641	16644	10.5	31D	1B	3	V	0730	196	2.5	
ABST	07	0720	0725	0733	S13	E53	.794	16648	11.3	13	-B		C	0725	87	1.4	DJ
TACH	07	0720	0727	0737	S08	E47	.727	16630	10.8	17	1N		C	0727	150	2.2	E
ABST	07	0726	0729	0732	S16	E56	.825	16647	11.5	6	-F		C	0729	87	1.6	DJ
804 CULG	07	0746	0752	0805	S27	W65	.905	16642	12.2	19	-F		C	0752	40	1.3	
805 ABST	07	0825E	0826	0830D	S10	E54	.804	16648	11.4	5D	-N		P	0826	96	1.5	DJ

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
806 ATHN	07	1006E	1007	1102	S16	W38	.621	16631	10.3	56D	-B	3	V	1007	164	2.1	
	07	1105	1125	NO FLARE PATROL													
	07	1135	1155	NO FLARE PATROL													
807 RAMY	07	1348	1316	1400	N03	W26	.463	16640	9.5	12	-B	3	C		180		
	07	1420	1424	NO FLARE PATROL													
808 RAMY	07	1448	1450	1453	N08	E29	.535	16641	9.8	5	-F	3	C		25		
	07	1454	1517	NO FLARE PATROL													
809 RAMY	07	1455	1456	1514	S15	E48	.741	16644	11.2	19	-N	3	C		35		
810 RAMY	07	1518	1518	1522	S13	E42	.667	16644	10.8	4	-F	3	C		23		
811 RAMY	07	1526	1526	1533	S13	E42	.667	16644	10.8	7	-N	3	C		38		
812 RAMY	07	1547	1547	1551	S15	W36	.593	16631	10.4	4	-N	3	C		30		
813 RAMY	07	1553	1553	1730	N02	W26	.458	16640	9.6	97	-N	3	C		23		
814 RAMY	07	1608	1612	1614	N10	W80	.959	16626	13.7	6	-F	3	C				
815 RAMY	07	1611	1612	1616	S14	E47	.729	16644	11.2	5	-N	3	C		42		
816 HOLL	07	1620	1620	1630	S12	E50	.762	16644	11.4	10	-N	2	C		33		
817 RAMY	07	1643	1651	1657	S20	E69	.929	16648	12.9	14	-F	3	C		12		
GRP81818	07	1645+1	1647+1	1702	S13	E48	.740	16644	11.3	17	-N				30	.5	D
RAMY	07	1645	1647	1707	S15	E47	.730	16644	11.2	22	-B	3	C		37		D
HOLL	07	1646	1648	1657	S12	E49	.750	16644	11.4	11	-N	3	C		21		
GRP81819	07	1653+1	1708+1	1818	N15	W59	.885	16627	3.3	85	2B				410	5.5	D
RAMY	07	1653	1708	1802	N15	W58	.877	16627	12.1	69	2B	3	C		420		D
HOLL	07	1654	1708	1818	N13	W59	.881	16627	12.1	84	2B	3	C		378		
BIGB	07	1707	1709	1821	N15	W60	.892	16627	12.2	74	1N	2	C	1709	420	5.0	
820 HOLL	07	1736	1738	1747	S08	E41	.652	16644	10.8	11	-N	3	C		37		
821 RAMY	07	1743	1744	1753	N03	W26	.463	16640	9.7	10	-N	3	C		47		
822 HOLL	07	1843	1848	1859	N10	W69	.944	16627	13.0	16	-F	3	C		27		
823 HOLL	07	1846	1846	1851	S16	W36	.595	16631	10.5	5	-N	3	C		24		
GRP81824	07	1901>9	1905+1 1919	1931	N02	W28	.488	16640	5.7	30	1N				200	2.3	D
RAMY	07	1901	1906	1934	N02	W29	.502	16640	10.0	33	-B	3	C		189		D
BIGB	07	1903	1905	1931	N03	W28	.492	15640	9.9	28	1N	2	C	1905	220	2.6	
HOLL	07	1912	1919	1931	N02	W28	.488	16640	9.9	19	-F	3	C		33		
GRP81825	07	2150E	2152 2202	2215	S20	W35	.596	16631	5.3	25	1N						F
CULG	07	2150U	2152	2210	S18	W32	.549	16631	10.3	20D	-F		C	2152	60	.7	
CULG	07	2150U	2202	2215U	S22	W38	.641	16631	10.8	25D	1N		C	2202	200	2.6	F
826 CULG	07	2238	2256	2308	N22	W03	.078	16636	8.2	30	?N		C	2256	220	2.5	T
	IMP.1 VD : PALE																
827 PALE	07	2243	2247	2248D	N01	W31	.527	16640	10.3	5D	?F	3	C		203		
	IMP.1 VD : HOLL CULG																
828 PALE	08	0015E		0033	S00	W31	.524	16640	10.3	18D	-F	3	C		73		
829 CULG	08	0021U	0029	0046	S16	W33	.555	16631	10.5	25D	-N		C	0029	100	1.2	H
GRP81830	08	0105+7	0112+8	0120	S15	W34	.565	16631	5.5	15	-N				80	1.0	
CULG	08	0105	0112	0121D	S15	W33	.552	16631	10.5	16D	-N		P	0112	120	1.4	
PALE	08	0112	0116	0119	S18	W34	.575	16631	10.6	7	-F	3	C		21		
YUNN	08	0115E	0115	0120	S15	W34	.565	16631	10.6	5D	-N		C		79	1.0	
831 YUNN	08	0115E	0115	0120D	N03	W31	.535	16640	10.4	5D	-N		P		176	1.6	E

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81832	08	0144+0	0145+1	0217	S15	E43	.682	15644	11.3	33	-B				60	.8	
PURP	08	0144	0145	0224	S15	E45	.706	15644	11.4	80	-B		C				
PALE	08	0144	0145	0217	S14	E43	.681	15644	11.3	33	-B	3	C		82		D
MANI	08	0145E	0145U	0155	S16	E41	.659	15644	11.1	100	-N	3	V		80	.6	F
833 CULG	08	0222	0226	02310	S11	W53	.798	15631	12.1	90	-F		C	0226	40	.6	
834 CULG	08	0414U	0416	0417D	N13	W62	.903	15627	12.8	30	-F		B	0414	50	1.1	
GRP81835	08	0456+4	0500+1	0508	S11	W48	.739	15631	4.6	12	1F						
YUNN	08	0456	0500	0509	S10	W48	.738	15631	11.6	13	1N		C		157	2.3	
PURP	08	0500	0501	0506	S13	W49	.751	15631	11.9	6	1F		P				
GRP81836	08	0549+5	0551+5	0605	S15	E42	.670	15644	11.4	16	1N						EM
YUNN	08	0549	0551	0605	S16	E42	.672	15644	11.4	16	1B		C		173	2.3	EM
PURP	08	0554	0556	0635	S14	E43	.681	15647	11.5	41	1N		C				
GRP81837	08	0600+0	0601+0	0606	S16	W48	.647	15631	5.2	6	1F						EZ
YUNN	08	0600E	0601	0607D	S16	W48	.647	15631	11.2	7D	1N		C		173	2.3	EZ
PURP	08	0600	0601	0605	S17	W48	.649	15631	11.2	5	1F		C				
838 CULG	08	0644	0645	0700	S19	W67	.915	15630	13.3	16	-F		C	0645	50	1.1	
839 CULG	08	0719	0726	0737	S12	E28	.472	15644	10.4	18	-N		C	0726	50	.6	H
GRP81840	08	0804+9	0812+3	0822	N18	W77	.984	15627	2.6	18	-F						
CULG	08	0804	0812	0824	N19	W80	.992	15627	14.3	20	-N		C	0812	80		
KANZ	08	0813	0815	0819	N18	W74	.974	15627	13.9	6	-F	1					
GRP81841	08	0825+3	0837+2	0904	N03	W35	.591	15640	5.7	39	-F						E
MONT	08	0825	0837	0902	N03	W36	.604	15640	11.1	37	-F		C	0837	50		F
KANZ	08	0828	0839	0905	N04	W35	.595	15640	11.0	37	-F	1					E
842 KANZ	08	0842	0854	0905	S16	W39	.638	15631	11.3	23	-F	1					D
GRP81843	08	0905+4	0910+3	0937	N13	W79	.987	15627	2.5	32	1B				300		EA
MONT	08	0905	0912	0937	N13	W81	.992	15627	14.5	32	1B		C	0912	250		
YUNN	08	0908	0910	0935	N14	W74	.971	15627	13.9	27	2B		C		434		EA
KANZ	08	0909	0913	0940	N13	W77	.981	15627	14.2	31	1B	2					
CATA	08	0915E	0915	09350	N10	W90	1.000	15627	15.1	200	2B	1		0915	225		
844 MONT	08	0906	0909	0911	N05	W62	.891	15627	13.0	5	-F		C	0909	60		E
GRP81845	08	1023+0	1025+0	1029	S14	E26	.448	15644	10.4	6	-F				80	.9	E
YUNN	08	1023	1025	1028	S15	E26	.452	15644	10.4	5	-N		C		110	1.2	E
MONT	08	1023	1025	1029	S14	E27	.463	15644	10.5	6	-F		C	1025	50		F
GRP81846	08	1026	1033	1052	S15	W38	.619	15631	5.6	26	-F						D
KANZ	08	1026	1033	1041	S16	W41	.659	15631	11.5	15	-F	2					D
HEMO	08	1035E		11030	S15	W35	.579	15631	11.1	280	-N		C	1055	44	.6	
GRP81847	08	1026+1	1032+1	1041	S14	E39	.630	15644	11.4	15	-N				120	1.6	
KANZ	08	1026	1033	1041	S14	E36	.590	15644	11.1	15	-N	*					F
MONT	08	1027	1032	1037	S14	E39	.630	15644	11.4	10	-N	*	C	1032	150		
HEMO	08	1035E		11030	S14	E39	.630	15644	11.4	280	-N	*	C	1055	100	1.4	F
GRP81848	08	1135+2	1141+4	1158	N18	W79	.989	15627	2.6	23	-N						
MONT	08	1135	1141	1158	N19	W81	.994	15627	14.6	23	-N		C	1141	110		
KANZ	08	1137	1145	1157	N18	W78	.987	15627	14.3	20	-N	1					
GRP81849	08	1233+4	1238+3	1244	S14	E36	.590	15644	11.2	11	-N						E
MONT	08	1233	1238	1242	S15	E36	.592	15644	11.2	9	-N		C	1238	80		F
KANZ	08	1237	1237	1245	S14	E36	.590	15644	11.2	8	-N	2					E
GRP81850	08	1346>9	1351 1402+1	1418	S14	E35	.577	15644	11.2	32	-N						
MONT	08	1346	1351	1428	S15	E35	.579	15644	11.2	42	-F	*	C	1351	50		F
MONT	08	1401	1402	1428	S15	E36	.592	15644	11.3	27	-N	*	C	1402	70		D
KANZ	08	1403	1403	1407	S14	E35	.577	15644	11.2	4	-B	*					D
GRP81851	08	1349	1359	1420	S15	W39	.632	15631	5.7	31	-N						E
RAMY	08	1349	1359	1417	S17	W41	.661	15631	11.7	28	-N	3	C		25		
HEMO	08	1412E		14220	S14	W38	.617	15631	11.4	100	-N		C	1412	44	.7	F

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81852	08	1445>9	1502+1 1527	1540	N02	W38	.628	16640	5.8	55	-N				80	1.0	E
WEND	08	1445	1502	1540	N03	W38	.631	16640	11.5	55	-N	*	C	1502	69	.9	E
RAMY	08	1457	1503	1535	N01	W39	.638	16640	11.5	38	-N	*	C		99		
HOLL	08	1526E	1527U	1540	N02	W36	.601	16640	11.3	140	-F	*	C		73		
853 WEND	08	1446	1452	1504D	S14	E23	.404	16648	10.3	180	-N		C	1452	44	.5	E
854 HOLL	08	1533	1534	1540D	S13	E36	.588	16648	11.3	70	-F	2	C		26		
855 BIGB	08	1715	1723	1739	S16	E23	.414	16648	10.4	24	1N	2	C	1723	250	2.8	
GRP81856	08	1837+0	1847+1	1902	N01	W40	.651	16640	5.8	25	-N				50	.7	D
PALE	08	1837	1848	1900	S00	W41	.662	16640	11.9	23	-N	3	C		84		D
RAMY	08	1837E	1847U	1904D	N03	W40	.657	16640	11.8	270	-N	3	C		66		
857 PALE	08	1848	1848	1902	S13	E42	.667	16647	11.9	14	-F	3	C		19		
858 PALE	08	2048	2049	2052	S16	E27	.471	16648	10.9	4	-N	3	C		32		D
GRP81859	08	2313+8	2320+3	2343	N27	W03	.553	16639	8.7	30	-F						D
CULG	08	2313	2320	2351U	N27	W03	.553	16639	9.2	380	-F		C	2320	160	1.9	
PALE	08	2321	2323	2342	N24	W03	.509	16639	9.2	21	-N	3	C		48		
VORO	08	2336E		2343	N28	W02	.567	16639	9.1	70	-F		P	2337	45	.6	D
860 VORO	08	2353	2354	2355	S14	E30	.507	16648	11.2	2	-N		C	2354	90	1.0	D
861 VORO	09	0005	0006	0007	N04	W42	.585	16640	12.2	2	-N		C	0006	63	.9	D
862 CULG	09	0103	0106	0118	S26	W90	.999	16642	15.8	15	-F		C	0106	30		
GRP81863	09	0114+1	0117+5	0131	S15	E37	.605	16647	11.8	17	-F						D
PALE	09	0114	0122	0131	S15	E37	.605	16647	11.8	17	-N	3	C		156		E
VORO	09	0115	0117	0128	S15	E38	.619	16647	11.9	13	1F		C	0117	296	3.8	
MANI	09	0116E	0120	0135	S15	E37	.605	16647	11.8	19D	-F	3	V		80	1.0	
864 CULG	09	0411	0422	0428D	S15	W47	.730	16631	12.7	17D	2N		P	0422	180	2.5	
	IMP.1	NO : MITA	PURP														
GRP81865	09	0517	0518+6	0529	S12	W58	.843	16631	4.9	12	-F						
PURP	09	0517	0518	0527	S14	W58	.843	16631	13.6	10	1F		C				
YUNY	09	0523E	0529	0530	S11	W58	.843	16631	13.6	7D	-F		C		80	1.5	
866 YUNY	09	0531F	0531	0536	S21	E48	.750	16648	12.8	5D	-N		C		43	1.0	Eo
GRP81867	09	0735+9	0745+1	0832	N26	W05	.543	16639	8.9	57	1N				330	3.9	J
PURP	09	0735	0745	0815	N27	W07	.562	16639	9.8	80	1B		C				
YUNY	09	0744	0746	0805	N26	W05	.543	16639	9.7	21	1N		C		330	3.9	EF
KANZ	09	0745E		0857	N26	W05	.543	16639	9.7	720	-N	1					
ABST	09	0751F	0751	0858D	N25	W08	.527	16639	9.6	670	2N		P	0751	435	5.3	EJ
MANI	09	0751F	0751U	0810	N26	W03	.540	16639	9.6	190	-N	2	V		90	1.1	F
MONT	09	0826F	0826	0840D	N26	W05	.543	16639	9.7	160	-N		C	0826	100		
GRP81868	09	0747+2	0750+3 0801	0815	S15	W52	.784	16631	5.4	28	-N				110	1.8	E
PURP	09	0747	0750	0811	S17	W51	.776	16631	13.1	24	1N		C				
KANZ	09	0749	0753	0819	S15	W51	.774	16631	13.2	30	-F	1					
ABST	09	0751E	0751	0819	S17	W52	.796	16631	13.2	280	1F		P	0751	140	2.6	E
CULG	09	0752E	0753U	0906D	S14	W53	.798	16631	13.3	140	-N		P	0753	80	1.5	C
YUNY	09	0759	0801	0811	S14	W52	.758	16631	13.2	12	-N		C		110	1.8	E
GRP81869	09	0857+0	0900+1	0911	S18	E46	.722	16648	12.8	14	-F						
KANZ	09	0857	0900	0906	S19	E48	.748	16648	13.0	9	-F	2					
WEND	09	0857	0901	0916	S18	E45	.711	16647	12.7	19	-F		C	0901	31	.5	
GRP81870	09	1025+1	1032+2	1041	N19	W68	.949	16633	4.3	16	-F						
WEND	09	1025	1032	1040	N19	W68	.949	16633	14.5	15	-F		C	1032	28		
KANZ	09	1026	1034	1042	N19	W68	.949	16633	14.5	16	-F	2					
GRP81871	09	1150+4	1154+0	1222	S17	W58	.843	16631	5.1	32	-N				80	1.5	E
MONT	09	1150	1154	1222	S17	W60	.861	16631	14.0	32	-N		C	1158	100		
KANZ	09	1151	1158	1221	S16	W58	.843	16631	13.8	30	-N	2					
WEND	09	1154		1232D	S18	W56	.826	16631	13.7	380	-N		C	1156	56	1.1	E
872 KANZ	09	1158	1159	1214	S15	E11	.237	16648	10.3	16	-F	2					

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81873	09	1306+2	1308	1335	S18	W58	.844	16631	5.2	29	-N						E
MENO	09	1306		1322D	S18	W58	.844	16631	13.9	16D	-N		C	1308	38	.8	E
KANZ	09	1308	1308	1335	S18	W58	.844	16631	13.9	27	-N	2					
874 KANZ	09	1412	1414	1427	S14	E29	.492	16647	11.8	15	-B	2					
875 KANZ	09	1419	1427	1443D	S12	W63	.885	16631	14.3	24D	-N	2					
	09	1443	1527	NO FLARE PATROL													
876 HOLL	09	1603E	1603U	1635	S17	W55	.816	16631	13.8	32D	-F	3	C		65		
877 HOLL	09	1703	1724	1747D	N24	W12	.540	16639	10.6	44D	-F	3	C		21		
878 BIGB	09	1842	1855	1952	N25	W11	.549	16639	10.6	70	-N	3	C	1855	100	1.1	
879 CULG	09	2203	2210	2224	S11	W55	.814	16631	14.0	21	?N		C	2210	120	2.0	FI
	IMP.1 VO : 9IGB PALE																
880 CULG	09	2320	2324	2334	S11	W75	.962	16631	15.0	14	-F		C	2324	40		
881 PALE	09	2335	2337	2340	S12	E09	.181	16640	10.7	5	-F	3	C		26		
882 CULG	10	0015	0020	0036	N25	W71	.970	16633	15.3	21	?F		C	0020	90		G
	IMP.1 VO : PALE VORO MITK																
883 CULG	10	0040	0046	0050	N05	E88	1.000	16653	16.6	10	-F		C	0046	30		
GRP81884	10	0130>9	0140	0154	N05	E90	1.000	16653	16.8	24	1N						HK
			0146+8														
CULG	10	0130	0146	0159	N05	E90	1.000	16653	16.8	29	1N	*	C	0146	80		
PURP	10	0137	0140	0153	N04	E90	1.000	16653	16.8	16	1N	*	C				
VORO	10	0140	0150	0154	N07	E90	1.000	16653	16.8	14	-N	*	C	0150	179		HK
GRP81885	10	0131+3	0133+2	0142	N27	W17	.607	16639	8.8	11	-N				60	.7	D
PURP	10	0131	0133	0142	N27	W17	.607	16639	11.3	11	-N		C				
YUNY	10	0132	0133	0140	N27	W17	.607	16639	11.3	8	-N		C		63	.8	
PALE	10	0132	0133	0141	N25	W19	.596	16639	11.5	9	-F	3	C		27		
VORO	10	0134	0135	0145	N28	W18	.625	16639	11.4	11	-N		C	0135	90	1.2	D
GRP81886	10	0139+1	0140+3	0145	S15	W66	.908	16631	5.1	6	-F						
PURP	10	0139	0140	0144	S16	W67	.918	16631	15.1	5	-F		C				
YUNY	10	0140	0143	0145D	S15	W65	.900	16631	14.9	5D	-N		C		63	1.4	
GRP81887	10	0236+0	0237+2	0247	N01	W62	.886	16640	5.5	11	-F				25	.5	
PALE	10	0236	0239	0244	S01	W62	.884	16640	14.8	8	-F	3	C		17		
YUNY	10	0236	0237	0250	N03	W62	.888	16640	14.8	14	-N		C		31	.6	
888 CULG	10	0312	0314	0319	S15	W79	.977	16631	16.1	7	-F		C	0314	50		
889 CULG	10	0429	0431	0444	N10	E83	.995	16653	16.4	15	?N		C	0431	90		
	IMP.1 VO : YUNY PURP																
890 YUNY	10	0449E	0451	0500	S18	W60	.861	16631	14.7	11D	-B		C		94	1.9	E
GRP81891	10	0608+2	0610+2	0617	S18	W60	.861	16631	5.8	9	1N						D
CULG	10	0510E	0510E	0646	S14	W55	.810	16631	14.3	96D	2F		C	0510	400	5.4	
ABST	10	0608	0610	0616	S18	W61	.870	16631	14.8	8	1N		C	0610	105		D
TACH	10	0610	0612	0618	S18	W61	.870	16631	14.8	8	1N		C	0612	106		D
YUNY	10	0610E	0611	0616	S18	W60	.861	16631	14.8	6D	-N		C		63	1.3	
GRP81892	10	0735+2	0737	0820	S09	W05	.096	16644	9.9	45	-N				70	.7	D
			0745+8														
CATA	10	0735	0745	0845	S11	W05	.115	16650	10.7	70	-N	2		0745	56	.5	
ABST	10	0735E	0737	0746D	S09	W05	.096	16650	10.7	11D	-N		P	0737	96	1.0	D
YUNY	10	0737	0750	0820	S10	W05	.105	16650	10.7	43	-N		C		79	.9	
PURP	10	0752	0753	0817	S09	W05	.096	16650	10.7	25	-F		C				
893 CATA	10	1015	1023	1035	N12	W90	1.000	16633	17.2	20	2N	2		1023	281		A
894 CATA	10	1045	1100	1105	N18	E90	1.001	16653	17.2	20	1N	2		1100	56		
	10	1400	1402	NO FLARE PATROL													
	10	1516	1522	NO FLARE PATROL													

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	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81895	10	1528	1538+4	1716	S18	E09	.249	16644	11.3	108	1B				450	4.7	U
RAMY	10	1528	1538	1716	S18	E10	.259	16644	11.4	108	2B	3	C		685		
HUAN	10	1532E		1606D	S18	E08	.239	16644	11.2	34D	1N	2	P	1535	200	2.1	U
BIG3	10	1538E	1538U	1843	S19	E10	.272	16644	11.4	185D	2B	3	P	1538	520	5.4	
HOLL	10	1541E	1542U	1606D	S11	E01	.079	16644	10.7	25D	1N	3	C		381		
896 HOLL	10	1852	1857	1917	N10	E76	.976	16653	16.5	25	?B	4	C				
	IMP.1 VD : BIG8																
GRP81897	10	2018+3	2028+0	2029	N12	E76	.977	16653	16.5	11	-B						
RAMY	10	2018	2028	2029D	N11	E73	.965	16653	16.3	11D	-B	3	C				
HOLL	10	2021	2028	2029D	N13	E79	.987	16653	16.8	8D	1B	3	C				
GRP81898	10	2057>9	2110	2232	N27	W21	.633	16639	9.3	95	1N				180	2.3	
			2121+3														
CULG	10	2057	2121	2232	N32	W18	.672	16639	12.2	95	2N		C	2121	480	5.3	
BIG3	10	2104	2110	2326	N28	W22	.651	16639	12.5	182	1N	3	C	2110	230	2.6	
RAMY	10	2106	2122	2135D	N27	W22	.640	16639	12.5	29D	-N	3	C		127		
HOLL	10	2106	2128	2205	N26	W20	.615	16639	12.4	59	-N	3	C		175		
PALE	10	2107		2109D	N25	W27	.657	16639	12.9	2D	-N	1	C				
899 CULG	10	2213	2219	2229	N10	E76	.976	16653	16.6	16	-N		C	2219	80		T
900 CULG	10	2314	2316	2325	S11	E61	.869	16651	15.5	11	-F		C	2316	80	.8	
901 PALE	10	2329	2331	0002	N11	E72	.960	16653	16.4	33	-B	3	C		65		
GRP81902	11	0019+6	0020	0055	S10	W14	.246	16648	10.0	36	-N						
			0027														
PALE	11	0019E	0020	0050	S11	W15	.266	16650	12.1	31D	-F	2	C		20		
PURP	11	0025	0027	0100	S09	W18	.243	16650	12.1	35	1N		C				
903 CULG	11	0107	0128	0143	S32	E65	.909	16658	15.9	36	-F		C	0128	80		
904 PALE	11	0250E	0251	0349D	N10	E72	.959	16653	16.5	59D	-F	2	C				
905 CULG	11	0427	0432	0444	S14	W80	.981	16631	17.2	17	?N		C	0432	60		
	IMP.1 VD : PURP YUNY																
GRP81906	11	0444	0458	0507	N10	W23	.878	16641	9.5	23	1F						E
PURP	11	0444	0454	0512	N10	W24	.887	16641	10.0	28	1F		C				
YUNY	11	0455E	0455	0502	N10	W22	.852	16641	12.9	7D	1N		C		186	2.1	E
GRP81907	11	0718	0723+3	0741	N08	E74	.967	16653	16.9	23	-N				60		
YUNY	11	0718	0723	0735	N08	E74	.967	16653	16.9	17	-N		C		43		
MANI	11	0720E	0728U	0728D	N09	E78	.983	16653	17.2	8D	-N	2	V		40	1.0	
ATHN	11	0722E	0726	0746	N06	E71	.951	16653	16.6	24D	1B	3	V	0726	131	5.6	
908 CULG	11	0722	0725	0734	N18	W78	.987	16638	17.2	12	-F		C	0725	30		
909 CULG	11	0747	0751	0800	S14	W80	.981	16631	17.3	13	-N		C	0751	40		
910 ATHN	11	1019E	1021	1051D	S18	W85	.993	16631	17.8	32D	1B	3	V	1021	98	5.0	
911 ATHN	11	1034E	1035	1133D	N11	W30	.569	16641	13.7	59D	-B	3	V	1035	131	1.5	
912 RAMY	11	1218	1220	1231	N26	W38	.728	16639	14.1	13	-F	3	C		53		
913 RAMY	11	1424	1425	1441	N29	W40	.793	16639	14.6	17	-F	3	C		20		
GRP81914	11	1502+1	1505	1528	S10	W22	.375	16648	10.0	26	-N				85	.5	E
HUAN	11	1502		1509D	S10	W23	.391	16650	13.4	7D	-N	1	P	1508	40	.4	E
RAMY	11	1503	1505	1528	S11	W22	.377	16648	13.3	25	-N	3	C		50		
915 HOLL	11	1507	1522	1559	N10	W28	.537	16641	13.7	52	-N	3	C		70		
916 HOLL	11	1613	1622	1629	N10	E66	.926	16653	16.6	16	-N	3	C		17		
GRP81917	11	1638+3	1643+0	1703	N10	E68	.913	16653	16.5	25	-B				60	1.8	
HOLL	11	1638	1643	1703	N10	E66	.926	16653	16.6	25	-B	3	C		77		
RAMY	11	1641	1643	1645D	N10	E62	.898	16653	16.3	4D	-B	3	C		52		
918 HOLL	11	1641	1647	1655	N09	W29	.543	16641	13.9	14	-F	3	C		24		
GRP81919	11	1704+2	1723	1812	N09	W30	.555	16641	9.5	68	-N						
			1730												93		
HOLL	11	1704	1730	1803	N09	W30	.555	16641	14.0	59	-N	3	C		150	1.9	
BIG3	11	1706	1723	1820	N09	W30	.555	16641	14.0	74	-N	3	C	1723			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81920	11	1830	1853+1	1931	N08	W30	.549	16641	9.5	61	-N						
HOLL	11	1830	1854	1911	N09	W30	.555	16641	14.0	41	-F	3	C		75		
PALE	11	1835E	1853U	1925	N08	W30	.549	16641	14.0	50D	1N	3	C		211		
HOLL	11	1922	1931	1936	N09	W31	.568	16641	14.1	14	-N	3	C		55		
921 PALE	11	1902	1903	1922	N10	E63	.906	16653	16.5	20	-F	3	C		17		D
922 HOLL	11	1932	1934	1936	S17	W81	.983	16631	17.9	4	-F	3	C				
GRP81923	11	2032	2041 2106+1	2124	N09	W33	.598	16641	9.4	52	-F						
RAMY	11	2032	2041	2102	N10	W34	.612	16641	14.4	30	-N	*	C		38		
PALE	11	2101E	2106	2128	N08	W34	.601	16641	14.4	27D	-F	*	C		100		
RAMY	11	2103	2107	2119	N09	W32	.581	16641	14.3	16	-N	*	C		40		
GRP81924	11	2035+2	2037+1	2057	N12	E62	.902	16653	16.5	22	1B						V
CULG	11	2035	2038	2101	N12	E62	.902	16653	16.5	26	2B		C	2038	300	6.7	V
HOLL	11	2037	2038	2057	N13	E62	.908	16653	16.5	20	1B	3	C		267		
RAMY	11	2037	2037	2055	N11	E61	.893	16653	16.4	18	-B	3	C		198		
925 HOLL	11	2114	2115	2122	S17	W09	.235	16644	12.6	8	-F	3	C		38		
GRP81926	11	2120+8	2129+1	2151	N13	E64	.917	16653	16.7	31	-F						
PALE	11	2120	2128	2153	N10	E62	.898	16653	16.5	33	-F	3	C		56		
HOLL	11	2128	2129	2149	N16	E66	.934	16653	16.8	21	-F	3	C		21		
927 BIGB	11	2139	2143	2149	N15	W90	1.000	16634	18.7	10	?N	3	C	2143	70		
IMP.1 VD : HOLL PALE CULG																	
928 HOLL	11	2212	2213	2221	N16	E66	.934	16653	16.9	9	-F	3	C		17		
929 CULG	11	2244	2249	2309	S17	E88	.998	16655	18.5	25	?F		C	2249	60		
IMP.1 VD : HOLL BIGB																	
GRP81930	11	2324+5	2329 2331	2348	N10	E68	.938	16653	17.1	24	-N						
HOLL	11	2324	2329	2333	N10	E65	.919	16653	16.8	9	-F	3	C		31		
PALE	11	2329	2331	0002	N11	E72	.960	16653	17.4	33	-B	3	C		63		
GRP81931	11	2354	0004	0014	N10	W36	.636	16641	9.3	20	?N						E
IMP.1 VD : BIGB CULG HOLL VORO																	
MITK	11	2354	2404	0014	N10	W36	.636	16641	14.7	20	1N		C	2404	210	2.7	E
GRP81932	12	0131+1	0137+1	0153	N14	E65	.925	16653	16.9	22	-N						D
VORO	12	0131	0138	0153	N15	E67	.939	16653	17.1	22	1N		C	0138	152		D
PALE	12	0132	0137	0153D	N13	E64	.917	16653	16.9	21D	-F	3	C		35		
933 YUNN	12	0205E	0209	0212	N10	W37	.649	16641	14.9	7D	-N		C		63	.8	
GRP81934	12	0336+2	0339+3	0352	S10	W22	.375	16644	10.5	16	-N				110	1.2	E
VORO	12	0336		0339D	S11	W22	.377	16644	13.8	3D	-F		P	0339	125	1.4	E
YUNN	12	0337	0342	0355	S10	W22	.375	16644	13.8	18	-N		C		94	1.0	E
PURP	12	0338	0339	0349	S10	W19	.327	16644	13.6	11	1N		C				
935 YUNN	12	0435	0436	0446	S10	W22	.375	16644	13.8	11	-F		C		79	.8	E
GRP81936	12	0557+3	0603+4	0624	N11	E57	.861	16653	16.5	27	-B				80	1.5	
PURP	12	0557	0603	0624	N13	E60	.889	16653	16.7	27	1B		C				
CULG	12	0557	0607	0624	N13	E56	.857	16653	16.4	27	-N		C	0607	100	1.9	
YUNN	12	0600	0604	0620	N10	E58	.832	16653	16.3	20	-B		C		94	1.7	
ATHN	12	0604E	0607	0630	N08	E58	.863	16653	16.6	26D	-B	3	V	0607	89	.9	
937 ABST	12	0646E	0649	0726	N11	W40	.689	16641	15.3	40D	?N		P	0649	262	3.7	E
IMP.1 VD : YUNN PURP MITK CULG																	
938 ABST	12	0653	0704	0741D	S11	W24	.408	16644	14.1	48D	-F		P	0704	87	1.0	D
939 ABST	12	0727	0732	0735	S17	E70	.933	16655	17.6	8	-N		C	0732	87		D
GRP81940	12	0738E	0738	0757	N10	W38	.661	16641	9.5	19	1B				180	2.4	E
ATHN	12	0738E	0739	0758D	N09	W39	.668	16641	15.2	20D	1B	3	V	0738	196	2.6	
YUNN	12	0744E	0748	0755	N11	W39	.666	16641	15.2	11D	1N		C		161	2.2	E
941 PURP	12	0812	0812	0814	N13	E65	.924	16653	17.2	2	?F		P				
IMP.1 VD : YUNN ABST KANZ																	

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	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.	
GRP81942	12	0835+3	0840+2	0907	S07	W27	.451	16644	10.3	32	1N				220	2.5	FJ
ABST	12	0825	0830	0842U	S07	W30	.497	16650	14.6	17D	1N		P	0830	349	4.1	F
MONT	12	0835	0841	0959	S07	W27	.451	16644	14.4	84	1N		C	0841	250		
KANZ	12	0838	0842	0850D	S07	W28	.466	16644	14.5	12D	1N	3					
YUNN	12	0838	0840	0907	S06	W26	.436	16644	14.3	29	1B		C		267	3.0	EFJ
MANI	12	0845E	0845U	0901D	S08	W25	.420	16644	14.2	16D	-N	2	V		150	1.7	F
943 YUNN	12	1029	1030	1035	N11	W38	.666	16641	15.3	6	-N		C		80	1.1	
GRP81944	12	1053+2	1107	1116	N12	W39	.683	16641	9.5	23	-F						E
MONT	12	1053	1107	1116	N13	W40	.699	16641	15.5	23	-F		C	1107	60		E
KANZ	12	1055		1103D	N11	W39	.678	16641	15.4	8D	-F	2					
945 MONT	12	1131	1133	1138	S19	W15	.327	16644	13.6	7	-F		C	1133	50		E
GRP81946	12	1207	1219	1236	S15	W28	.480	16644	10.4	29	-N						
MONT	12	1207	1219	1236	S18	W33	.561	16644	15.0	29	-N		C	1219	100		
RAMY	12	1227E	1337	1352D	S13	W23	.399	16644	14.2	85D	-B	3	C		122		
947 RAMY	12	1227E	1337	1506	N13	E23	.502	16652	14.2	159D	-B	3	C		122		
GRP81948	12	1227>9	1344 1458	1533	N10	W42	.708	16641	9.4	186	-N						
RAMY	12	1227E	1458	1626	N09	W42	.703	16641	15.7	239D	1N	*	C		193		
RAMY	12	1227E	1348	1626	N09	W42	.703	16641	15.7	239D	1B	*	C		193		
HOLL	12	1450	1517	1533	N10	W43	.719	16641	15.8	43	-N	*	C		30		
KANZ	12	1458E		1505D	N11	W42	.712	16641	15.8	7D	-N	*					
949 MONT	12	1319	1323	1341	N10	E59	.875	16653	17.0	22	-F		C	1323	60		E
GRP81950	12	1427+6	1434+2	1440	S18	E75	.960	16655	18.2	13	-N				60		D
RAMY	12	1427	1435	1453	S18	E70	.933	16655	17.9	26	-N	3	C		84		
MONT	12	1433	1434	1440	S17	E79	.977	16655	18.5	7	-B		C	1434	50		D
KANZ	12	1433	1436	1439	S18	E75	.960	16655	18.2	6	-N	1					
951 MONT	12	1450	1453	1500D	S17	W39	.635	16644	15.5	10D	-F		C	1453	60		E
GRP81952	12	1545+1	1550+2	1604	S16	E73	.950	16655	18.1	19	-F						
RAMY	12	1545	1550	1608	S18	E78	.933	16655	17.9	23	-N	3	C		48		
HOLL	12	1546	1552	1600	S15	E76	.965	16655	18.4	14	-F	3	C				
953 HOLL	12	1615	1619	1621	S11	W32	.528	16644	15.1	6	-F	3	C		24		
GRP81954	12	1642+2	1713+3 1742+2	1821	N08	W45	.738	16641	9.3	99	-B				130	1.9	
HOLL	12	1642	1742	1831	N08	W45	.734	16641	16.1	109	-B	*	C		180		
RAMY	12	1644	1713	1731D	N09	W46	.748	16641	16.1	47D	-B	3	C		116		
BIGB	12	1712	1716	1736	N08	W43	.711	16641	15.9	24	-N	3	C	1716	140	2.0	
BIGB	12	1741	1744	1810	N08	W44	.723	16641	16.0	29	-N	*	C	1744	90	1.3	
GRP81955	12	1720+3	1726+1	1814	S07	W33	.541	16644	10.2	54	-N				90	1.1	
HOLL	12	1720	1727	1805	S07	W33	.541	16650	15.2	45	-N	3	C		100		
BIGB	12	1723	1726	1823	S07	W34	.556	16650	15.3	60	-N	3	C	1726	80	1.0	
956 HOLL	12	1941	2008	2017	N13	E48	.794	16653	16.4	36	-N	3	C		46		
957 HOLL	12	2015	2017	2020	N09	W45	.737	16641	16.2	5	-N	3	C		24		
GRP81958	12	2040+4	2049+0	2123	N08	W46	.745	16641	9.4	43	1B						
CULG	12	2040	2049	2105U	N09	W46	.789	16639	16.3	25D	2N		C	2049	400	5.0	T
HOLL	12	2044	2049	2123	N08	W46	.745	16641	16.3	39	1B	3	C		187		
959 HOLL	12	2124	2246	2344	N09	W47	.759	16641	16.4	140	-B	3	C		91		
960 CULG	12	2131E	2131U	2140	S18	E51	.776	16651	16.7	9D	-F		C	2131	60	1.0	
961 CULG	12	2207	2213	2226	N06	E48	.761	16653	16.5	19	-N		C	2213	100	1.6	
962 CULG	13	0009	0017	0041	N12	E45	.709	16653	16.4	32	-N		C	0017	110	1.7	
GRP81963	13	0139+3	0140+5	0212	S07	W38	.612	16644	10.2	33	-N				160	2.0	E
CULG	13	0128	0140	0221D	S08	W38	.611	16650	15.9	53D	1N		C	0140	180	2.3	
YUNN	13	0139	0144	0215	S07	W39	.625	16650	16.0	36	-N		C		126	1.6	E
MITK	13	0142	0145	0152	S07	W38	.612	16650	15.9	10	1N		C	0145	180	2.4	E
VORO	13	0155E		0208	S07	W39	.625	16650	16.0	13D	-N		P	0155	125	1.6	
964 YUNN	13	0205E	0205	0215	N12	W52	.819	16641	17.0	10D	-N		C		79	1.3	E

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR AREA Sq. Deg.	
965 VORO	13	0208	0210	0218	N13	E52	.822	16653	17.0	10	-N		C	0210	99	1.7	E
GRP81966	13	0259+8	0304+5	0332	S21	E76	.964	16655	18.8	33	2N				230		E
VORO	13	0259	0304	0335	S21	E76	.964	16655	18.8	36	2F	*	C	0304	269		E
CULG	13	0300	0307	0412U	S22	E76	.964	16655	18.8	720	3N	*	C	0307	450		
MITK	13	0304	0307	0329	S21	E84	.990	16655	19.4	25	1N	*	C	0307	130		E
YUNN	13	0307	0309	0315	S23	E72	.945	16655	18.5	8	1B	*	C		188		
GRP81967	13	0301>9	0312 0318+0	0332	S23	W22	.049	16644	11.5	31	1N						GHIL
CULG	13	0301	0318	0430	S23	W21	.037	16647	14.7	89	2N		C	0318	900	9.9	BIF
VORO	13	0306	0312	0332	S24	W22	.058	16647	14.8	26	1F		C	0312	349	4.0	EHL
YUNN	13	0315	0318	0318D	S19	W24	.044	16644	14.9	30	-N		C		64	.7	G
968 YUNN	13	0315	0318	0318D	N11	W50	.797	16641	16.9	30	-F		C		80	1.3	E
969 VORO	13	0316	0319	0322	S06	W39	.626	16650	16.1	6	-N		C	0318	72	.9	DJ
GRP81970	13	0316+2	0318+2	0332	N05	E46	.736	16653	16.6	16	-F				90	1.3	H
CULG	13	0316	0320	0344	N04	E46	.733	16653	16.6	28	-N	*	C	0320	100	1.4	HT
VORO	13	0318	0318	0320	N06	E47	.750	16653	16.7	2	-F	*	C	0318	90	1.4	
971 MITK	13	0417	0419	0427	N14	E51	.816	16653	17.0	10	-B		C	0419			E
972 YUNN	13	0420E	0420	0427	S08	W48	.738	16650	16.8	70	-N		C		48	.6	
	13	0500	0515	NO FLARE PATROL													
973 CULG	13	0552	0557	0605	N04	E45	.722	16653	16.6	13	-N		C	0557	100	1.4	HT
974 YUNN	13	0643	0645	0647	S06	W42	.666	16650	16.4	4	-N		C		63	.3	
GRP81975	13	0724>9	0726 0748	0805	S11	W40	.639	16644	16.3	41	-N						H
YUNN	13	0724	0726	0755	S11	W38	.612	16644	16.2	31	-N		C		79	1.0	EF
CULG	13	0741	0748	0815	S12	W43	.678	16644	16.5	34	-N		C	0748	100	1.3	HT
976 YUNN	13	0731E	0731	0735	N12	W55	.846	16641	17.4	40	2B		C		157	2.8	
	IMP.1 VO : CULG																
GRP81977	13	0759+2	0800	0815	N13	W54	.840	16641	9.3	16	-B						
YUNN	13	0759	0800	0806	N13	W54	.840	16641	17.4	7	1B		C		142	2.5	
KANZ	13	0801	0816	0824	N13	W55	.849	16641	17.5	23	-N	2					
978 CULG	13	0810	0815	0833	S05	W45	.704	16650	16.7	23	-N		C	0815	120	1.7	
979 MONT	13	0826	0828	0840	S13	W39	.628	16644	16.3	14	-F		C	0828	60		E
980 KANZ	13	0840	0840	0847	N11	W53	.826	16641	17.3	7	-N	2					D
GRP81981	13	0902+3	0906+1	0918	S12	W39	.627	16644	16.5	16	-F						E
KANZ	13	0902	0906	0912	S12	W39	.627	16644	16.3	10	-F	1					
MONT	13	0905	0907	0923	S13	W39	.628	16644	16.3	18	-F		C	0907	80		E
GRP81982	13	0940+5	0959+7	1040	S06	W41	.653	16644	16.3	60	1N						DGO
MEND	13	0940	0959	1039	S07	W38	.612	16644	16.3	59	1N	*	C	0959	162	2.2	G
KHAR	13	0945E		1040	S07	W44	.690	16650	16.7	550	1F		P	0950	300	4.2	DO
KANZ	13	0947	1002	1038	S06	W42	.666	16644	16.6	51	1N	*					
MONT	13	0948	1006	1041	S05	W40	.640	16644	16.4	53	1N	*	C	1006	250		
983 KHAR	13	0950E		1000D	N11	W58	.869	16641	17.8	100	-F		V				D
GRP81984	13	1015+3	1019+1	1028	N12	W57	.863	16641	9.2	13	-N						DO
KHAR	13	1015	1019	1030	N11	W58	.869	16641	17.8	15	-F		P	1018			D
KANZ	13	1016	1020	1027	N12	W57	.863	16641	17.7	11	-N	1					
MEND	13	1018	1020	1028	N13	W57	.866	16641	17.7	10	-N		C	1020	44	.8	D
GRP81985	13	1024+3	1031	1041	S20	E71	.939	16655	18.8	17	-F						E
MEND	13	1024		1041	S17	E70	.933	16655	18.7	17	-N		C	1028	16		
KHAR	13	1025E		1037	S20	E71	.939	16655	18.8	120	-F		V	1030			E
KANZ	13	1027	1031	1042	S21	E73	.950	16655	18.9	15	-F	1					
GRP81986	13	1044+6	1052+1	1057	S11	W42	.665	16644	10.3	13	-N						HKLO
KHAR	13	1044E	1052	1120D	S14	W41	.655	16644	16.5	360	1B		P	1048	280	3.9	HKLO
MEND	13	1045	1052	1058	S11	W40	.639	16644	16.4	13	-N		C	1052	62	.9	
KANZ	13	1049	1053	1056	S11	W43	.678	16644	16.7	7	-N	1					
MONT	13	1050	1052	1056	S11	W43	.678	16644	16.7	6	-N		C	1052	110		H

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP81987	13	1048+8	1100+7	1133	S22	E70	.933	16655	16.7	45	1N						E
KHAR	13	1048E	1103	1120D	S22	E68	.922	16655	16.5	32D	1N	*	P	1108	250		E
WEND	13	1052		1251D	S21	E70	.933	16638	16.7	119D	1N		C	1106	100		
MONT	13	1055	1105	1113D	S23	E71	.939	16655	16.8	18D	1N	*	C	1105	250		
KANZ	13	1056	1107	1133	S22	E67	.915	16655	16.5	37	=B	*					
CATA	13	1100E	1100	1110D	S22	E72	.945	16655	16.9	10D	=N	*		1100	56		
988 KANZ	13	1100	1111	1138	S10	W41	.652	16644	16.5	38	=N	1					H
GRP81989	13	1140>9	1155 1210	1241	S18	E65	.900	16655	16.4	61	1N						
CATA	13	1140E	1155	1200D	S16	E65	.900	16655	16.4	20D	2N	*		1155	337	5.0	
KANZ	13	1150	1210	1241	S19	E65	.900	16655	16.4	51	1N	*					
RAMY	13	1226	1318	1400	S18	E73	.950	16655	19.0	94	=N	*	C		123		
990 KANZ	13	1142	1142	1150	N12	W57	.863	16641	17.8	8	=N	1					
991 KANZ	13	1202	1206	1234	N14	E44	.747	16653	16.8	32	=N	1					E
992 KANZ	13	1210	1214	1230	S12	W42	.666	16644	16.7	20	=N	1					H
GRP81993	13	1224+2	1230	1249	S07	W46	.715	16650	10.1	25	=N						
WEND	13	1224		1256D	S07	W46	.715	16650	17.0	32D	=N		C	1230	91	.6	
KANZ	13	1226	1230	1241	S07	W47	.727	16650	17.0	15	=N	1					
GRP81994	13	1256+2	1258+3	1305	N12	E42	.717	16653	16.7	9	=N						E
RAMY	13	1256	1258	1305	N12	E43	.772	16653	16.8	9	=N	3	C		78		
KANZ	13	1257	1301	1305	N13	E42	.721	16653	16.7	8	=N	1					
WEND	13	1258	1306	1316	N11	E40	.689	16653	16.5	18	=N		C	1306	38	.5	E
GRP81995	13	1301+0	1307+2	1318	S13	W41	.658	16644	10.5	17	=N						
KANZ	13	1301	1309	1317	S12	W41	.653	16644	16.6	16	=N	1					
RAMY	13	1301	1307	1318	S14	W42	.668	16644	16.7	17	=N	3	C		36		
GRP81996	13	1356+1	1406+2	1414	S12	W42	.666	16644	10.4	18	=N						
KANZ	13	1356	1408	1416	S12	W42	.666	16644	16.7	20	=N	1					
RAMY	13	1357	1406	1412	S13	W42	.667	16644	16.7	15	=N	3	C		47		
997 RAMY	13	1417	1430	1503	S14	W40	.642	16644	16.6	46	=N	3	C		38		
998 RAMY	13	1426	1426	1442	S19	E66	.907	16655	16.6	16	=N	3	C		92		
999 RAMY	13	1436	1437	1451	N25	E53	.871	16653	17.6	15	=N	3	C		20		
0 RAMY	13	1552	1636	1657	N26	W64	.940	16639	18.5	65	=N	3	C		51		
1 RAMY	13	1632	1633	1640	S18	E61	.869	16655	18.3	8	=F	3	C		17		
2 RAMY	13	1827	1831	1836	N09	W58	.865	16641	18.1	9	=F	3	C		18		
3 RAMY	13	1936	1937	1941	N09	W59	.873	16641	18.2	5	=N	3	C		20		
	13	1954	2030	NO FLARE PATROL													
GRP82004	13	2032	2034 2043	2126	S16	E54	.805	16655	17.9	54	1B						D
RAMY	13	2032	2034	2037D	S17	E53	.796	16655	17.8	5D	1B	3	C		223		D
CULG	13	2039E	2043U	2126	S16	E55	.815	16655	18.0	47D	1N		C	2043	300	4.8	
5 RAMY	13	2053	2053	2103	S13	W41	.654	16644	16.9	10	=F	3	C		22		
6 CULG	13	2316	2321	2336	S13	W45	.704	16644	17.3	20	=N		C	2321	70	1.0	T
7 CULG	13	2322	2325	2336	N25	E50	.849	16653	17.7	14	=F		C	2325	60	1.1	
8 CULG	13	2334	2342	0008	S20	W56	.827	16644	18.2	34	1N	*	C	2342	200	3.2	H
9 VORO	14	0227	0230	0236	S12	W50	.761		17.9	9	=N		C	0230	116	1.8	D
10 YUNN	14	0333	0346	0357	N29	W70	.971		19.4	24	=N		C		63		
11 YUNN	14	0400	0405	0420	N11	W62	.900		18.8	20	=F		C		31	.7	E
12 YUNN	14	0433	0435	0450	S05	W52	.785		18.1	17	=N		C		47	.8	
13 YUNN	14	0458	0502	0523	S20	E58	.845	16655	18.6	25	?N		C		157	2.8	E

IMP.1 NO : PURP

Hα SOLAR FLARES

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LNG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS AREA Mln of Disk	CORR AREA Sq Deg.	
14 YUNN	14	0542	0545	0600	S18	E48	.744	16655	17.8	18	-N		C		126	1.9	
15 PURP	14	0608	0610	0633	S04	W55	.817		18.4	25	7N		C				
	IMP.1	4D : YUNN MITK															
16 ABBT	14	0833E	0833	0902D	S22	E10	.309		15.1	29D	-F		P	0833	131	1.4	BE
17 KHAR	14	0940E		0955D	N26	E44	.807	16653	17.7	15D	-F		P	0955	100	1.7	D
GRP82019	14	0955+2	1000	1015	N18	W67	.932	16641	9.4	20	-N						
CAT4	14	0955	1000	1015	N08	W70	.947		19.7	20	1N	2		1000	112		
KHAR	14	0957		1006D	N12	W64	.916		19.2	9D	-F		V	0958			
19 KHAR	14	1024E		1101D	S22	E07	.287		15.0	37D	-F		P	1035			EH
	14	1400	1527	NO FLARE PATROL													
	14	1722	1729	NO FLARE PATROL													
	14	1828	1905	NO FLARE PATROL													
20 CULG	14	2151	2200	2228	S16	E38	.620	16655	17.8	37	-F		C	2200	80	1.0	
GRP82021	15	0055+5	0056+6	0110	S20	W02	.230	16651	14.9	15	-N				40	.8	EL
VORO	15	0055	0056	0106	S20	W03	.233		15.3	11	-N		C	0056	81	.8	E
CULG	15	0057	0102	0129	S20	E02	.230		15.2	32	-N		C	0102	80	.8	L
PURP	15	0100	0100	0110	S21	W02	.247		15.2	10	-N		C				
22 CULG	15	0058	0102	0107	N09	W88	1.000		21.6	9	-F		C	0102	30		T
23 PURP	15	0100		0102	S12	E50	.761	16655	18.8	2	-F		P				E
24 CULG	15	0121	0129	0206	S22	W48	.751		18.7	45	7F		C	0129	140	2.0	L
	IMP.1	4D : MITK PURP															
GRP82025	15	0238+9	0242+6	0254	S20	W03	.233	16651	14.9	16	1N						EHL
CULG	15	0238	0249	0336	S20	W03	.233		15.3	58	1N		C	0244	380	3.8	HL
YUNN	15	0242E	0242	0248	S20	W04	.238		15.4	6D	-N		C		173	1.8	E
PURP	15	0247	0248	0250	S21	W03	.250		15.3	3	1N		C				H
PALE	15	0249E		0257	S22	W02	.264		15.3	8D	-F	3	C		65		
GRP82026	15	0244+3	0247+2	0259	S18	E45	.710	16655	18.5	15	1N				330	4.8	E
CULG	15	0244	0249	0305	S17	E45	.708	16655	18.5	21	1N		C	0249	300	4.2	
YUNN	15	0246	0247	0252	S18	E43	.686	16655	18.3	6	1B		C		230	3.2	E
MITK	15	0247	0248	0255	S18	E47	.733	16655	18.6	8	-F		C	0248			E
PURP	15	0247	0249	0303	S18	E46	.721	16655	18.6	16	2N		C	0249	453	6.4	E
PALE	15	0249E		0252D	S17	E43	.684	16655	18.3	3D	1N	3	C		213		
27 CULG	15	0255	0310	0447	S23	W52	.793		19.0	112	7F		C	0310	240	3.9	
	IMP.1	4D : MITK PURP YUNN PALE															
GRP82028	15	0316+2	0319+5	0340	S17	E38	.622	16655	18.0	24	2N				490	6.3	EH
PALE	15	0249E		0346	S15	E36	.591	16655	17.8	57D	1N	3	C		215		
YUNN	15	0316	0319	0342	S18	E40	.650	16655	18.1	26	2N		C		629	8.2	E
PURP	15	0318	0324	0331	S18	E40	.650	16655	18.1	13	2N		C	0324	491	6.4	H
MITK	15	0318E		0338D	S17	E36	.596	16655	17.8	20D	1N		C	0320	250	3.2	E
29 CULG	15	0416	0426	0448	S09	W75	.962		20.8	32	-F		C	0426	40		
30 CULG	15	0452	0507	0609	S19	W04	.238		15.7	77	-F		C	0507	180	1.6	H
31 CULG	15	0545	0552	0612	N10	W84	.997		21.5	27	7F		C	0552	110		T
	IMP.1	4D : YUNN PURP															
32 CULG	15	0646	0649	0707	N10	W85	.998		21.7	21	-N		C	0649	40		T
GRP82033	15	0739+5	0743+2	0800	S19	W08	.250	16651	14.7	21	-N				60	.6	
CULG	15	0739	0743	0806	S19	W07	.241		15.8	27	-N		C	0743	90	.8	
YUNN	15	0744	0745	0754	S20	W09	.272		16.0	10	-N		C		47	.5	
34 CULG	15	0751	0756	0807	S07	W75	.963		21.0	16	-F		C	0756	50		
35 CULG	15	0824	0826	0832	N12	W87	1.000		21.9	8	-N		C	0826	30		T
36 ABBT	15	0837	0848	0903D	S18	E47	.733	16655	18.9	26D	-F		P	0848	87	1.3	D
37 KHAR	15	0925E		0945D	S18	E45	.710	16655	18.8	20D	-F		P	0925			EH
38 KHAR	15	0950E		1003	S06	W70	.937		20.7	13D	-F		V	0950			DH

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
39 YUNN	15	1033	1034	1036D	S19	E42	.677	16655	18.6	3D	-N		C		31	4	
40 RAMY	15	1216	1218	1223	S18	E37	.612	16655	18.3	7	-F	3	C		23		
GRP82041	15	1359+1	1403	1426	S19	E43	.688	16655	18.8	27	-F						
WEND	15	1359		1407D	S18	E45	.710	16655	19.0	8D	-N		C	1403	12	.2	
KANZ	15	1400	1403	1426	S20	E42	.679	16655	18.7	26	-F	1					
42 RAMY	15	1535	1536	1540	S10	W69	.929		20.8	9	-F	3	C		17		
43 RAMY	15	1652	1700	1715	S18	E34	.573	16655	18.3	23	-N	3	C		56		
44 RAMY	15	1656	1657	1701	N09	W84	.996		22.0	5	-F	3	C		15		
GRP82045	15	1904	1904	1949	S18	E40	.650	16655	18.8	45	-N						
RAMY	15	1904	1904	1949	S19	E40	.652	16655	18.8	45	-N	3	C		90		
HUAN	15	1906E		1921D	S18	E40	.650	16655	18.8	15D	-F	1	P				
GRP82046	15	2019>9	2035	2039	S17	E36	.596	16655	18.5	20	-F						
PALE	15	2019E		2129D	S17	E32	.543	16655	18.2	70D	-N	1	C		142		
HUAN	15	2029	2035	2039	S18	E40	.650	16655	18.9	10	-F	1	C	2035	80	.5	
	15	2053	2104	NO FLARE PATROL													
GRP82047	15	2107+3	2116	2130	S10	W71	.941	16644	10.6	23	-F						
RAMY	15	2107	2116	2130D	S13	W65	.900		20.8	23D	-N	3	C		71		
HUAN	15	2110		2117D	S07	W77	.972		21.7	7D	-F	1	P				
	15	2117	2153	NO FLARE PATROL													
	15	2155	2233	NO FLARE PATROL													
48 CULG	15	2234U	2238	2320	S20	W18	.373		17.3	46D	-N		C	2238	100	1.0	H
GRP82049	15	2340+0	2346+2	0009	S16	E26	.455	16655	17.9	29	1N				260	2.9	EHL
CULG	15	2340	2348	0015	S16	E26	.455	16655	17.9	35	1N		C	2348	300	3.3	LH
VORO	15	2344	2346	0009	S16	E26	.455	16655	17.9	25	1N		C	2346	215	2.5	E
MITK	15	2346	2348	0005	S18	E26	.465	16655	17.9	19	-N		C	2348			E
50 CULG	16	0139	0148U	0200	N15	W22	.513		17.7	21	-N		C	0148	100	1.2	
51 VORO	16	0144	0148	0203	S17	E35	.583	16655	18.7	19	-N		C	0148	90	1.1	D
52 CULG	16	0241	0243	0258	S11	W81	.985		22.2	17	-F		C	0243	40		
53 PALE	16	0305E	0308U	0314D	S17	E35	.583	16655	18.8	9D	-N	2	C		52		D
54 CULG	16	0440	0443	0451	S08	W80	.982		22.2	11	-F		C	0443	40		
55 CULG	16	0509	0513	0522	S19	W19	.376		17.6	13	-F		C	0513	60	.6	
56 CULG	16	0717	0723U	0735	S12	W85	.994		22.7	18	-F		C	0723	60		
GRP82057	16	0828+0	0828+0	0837	S18	E30	.519	16655	18.6	9	-F						
KANZ	16	0828	0828	0834	S18	E30	.519	16655	18.6	6	-N	1					EJ
ABST	16	0828E	0828	0840	S19	E30	.524	16655	18.6	12D	-F		P	0828	105	1.3	EJ
58 KANZ	16	0853	0857	0913	S18	E31	.533	16655	18.7	20	-N	2					E
59 YUNN	16	0933E	0933	0935D	S19	E31	.537	16655	18.7	2D	-N		C		157	1.9	E
GRP82060	16	0950+0	0951+3	1002	S18	W22	.409	16651	14.8	12	-F						
KANZ	16	0950	0954	1002	S19	W22	.416		18.1	12	-F	2					
YUNN	16	0950	0951	0952D	S18	W22	.409		18.1	2D	-N		C		63	.7	
61 YUNN	16	0957	0957	0959	S19	E29	.510	16655	18.6	2	-N		C		157	1.8	
62 KHAR	16	1009E		1025D	S21	E29	.521	16655	18.6	16D	-F		V	1014			H
63 ATHN	16	1030	1038	1058	S21	E26	.482	16655	18.4	28	-N	3	V	1038	66	.8	
64 KHAR	16	1229E	1232	1236D	S18	E29	.506	16655	18.7	7D	-F		P	1232	50	.6	
	16	1405	1505	NO FLARE PATROL													
65 HOLL	16	1520	1541	1606	S18	E24	.437	16655	18.4	46	-F	3	C		47		
66 HOLL	16	1645	1645	1657	S18	E24	.437	16655	18.5	12	-N	3	C		28		

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	
67 RAMY	16	1751	1802	1829	N16	W32	.630		19.1	38	-F	3	C		18		
68 HOLL	16	2010	2010	2020	N12	E01	.324	16653	16.9	10	-F	3	C		24		
69 HOLL	16	2211	2212	2219	N13	E00	.340	16653	16.9	8	-F	3	C		34		
70 BIGB	17	0009	0013	0015	S29	E90	.998	16678	23.8	6	-N	3	P	0013	40		
71 CULG	17	0022	0027	0038	N05	W06	.231	16653	17.5	16	-F		C	0027	80	.8	
72 CULG	17	0556	0603	0625	N15	W42	.732		20.4	29	-F		C	0603	90	1.3	KI
73 ABST	17	0652	0659	0720	N13	W03	.348	16653	17.5	28	-F		C	0659	87	.9	D
74 CULG	17	0716	0718	0725	N15	W43	.742		20.5	9	-F		C	0718	110	1.5	T
75 ABST	17	0733	0741	0749	N11	W04	.315	16653	17.6	16	-F		C	0741	96	1.0	DJ
76 CULG	17	0746	0752	0759	S32	W90	.998		24.1	13	-F		C	0752	40		
77 CULG	17	0753	0754	0756	N15	W42	.732		20.5	3	-F		C	0754	80	1.1	T
GRP82078	17	0801>9	0810 0821	0841	N16	W42	.737	16652	14.2	40	-F						EK
CULG	17	0801	0810	0830U	N15	W42	.732		20.5	29D	-N		C	0810	80	1.1	TK
ABST	17	0819	0821	0841	N17	W42	.742		20.5	22	-F		C	0821	87	1.3	E
GRP82079	17	0840+4	0842+3	0858	N09	W05	.287	16653	17.0	18	-N				130	1.4	EJ
ABST	17	0840	0842	0855	N10	W05	.303	16653	17.7	15	-N		C	0842	157	1.7	EJ
ATHN	17	0843	0845	0858	N08	W05	.271	16653	17.7	15	-B	3	V	0845	114	1.2	
YUNN	17	0844	0845	0904	N10	W06	.308	16653	17.8	20	-N		C		173	1.8	E
MANI	17	0845E	0845U	0858	N08	W05	.271	16653	17.7	13D	-N	3	V		80	.9	F
GRP82080	17	0950+0	1000	1003	N14	W43	.737	16652	14.2	13	-N				70	1.0	
CATA	17	0950E	1000	1005D	N13	W44	.783		20.7	15D	-B	2		1000	56	.9	
YUNN	17	0950		1000	N15	W42	.732		20.6	10	-N		P	0955	79	1.6	
	17	1113	1120	NO FLARE PATROL													
81 RAMY	17	1406	1408	1410	N17	W43	.752		20.8	4	-F	3	C		28		
82 RAMY	17	1538	1540	1603	S17	E06	.202	16655	18.1	25	-N	3	C		85		
GRP82083	17	1849	1850 1859	1906	S13	E67	.914	16659	22.8	17	-N						
RAMY	17	1849	1850	1905	S13	E67	.914	16659	22.8	16	-N	3	C		15		
PALE	17	1857E	1859U	1906D	S13	E67	.914	16659	22.8	9D	-F	1	C		20		
84 RAMY	17	1920	1926	1933	S13	E67	.914	16659	22.8	13	-N	3	C		38		
85 CULG	17	2126	2130	2142	S10	E65	.901	16659	22.8	16	-F		C	2134	60	1.4	
86 CULG	17	2134	2143	2155	N15	W50	.811		21.6	21	?N		C	2143	200	3.4	F
	IMP.1 WD = BIGB																
87 CULG	17	2325	2327	2332D	S18	W43	.686		21.2	7D	-F		P	2327	60	.8	
88 CULG	18	0012E	0020	0033	N16	W51	.828		21.8	21D	-F		P	0020	70	1.2	
89 CULG	18	0108	0112	0118	N07	W18	.386	16653	19.4	10	-N		C	0112	130	1.3	
90 CULG	18	0111U	0113	0145U	N16	W50	.822		21.8	34D	-F		C	0113	100	1.8	
91 TACH	18	0742E	0743	0752	S09	E65	.901	16659	23.2	10D	-N		C	0743	88		D
	18	0815	0820	NO FLARE PATROL													
	18	0825	0841	NO FLARE PATROL													
92 KHAR	18	0955	0957	1015D	S09	E62	.878	16659	23.1	20D	-F		P	0959	70		DH
GRP82093	18	1018+0	1025	1050	N09	W21	.943	16653	16.9	32	-N						
MONT	18	1018	1025	1041	N09	W20	.431	16653	19.9	23	-N		C	1025	80		
KHAR	18	1018		1058	N09	W22	.456	16653	20.1	40	1F		P	1028	340	4.1	
GRP82094	18	1113>9	1133	1139	S09	E63	.886	16659	23.2	26	-F						E
KHAR	18	1113E		1133	S09	E62	.878	16659	23.1	20D	-F		V	1113			
MONT	18	1129	1133	1144	S10	E64	.893	16659	23.3	15	-F		C	1133	50		E

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
	18	1400	1457	NO FLARE PATROL													
95 HOLL	18	1632	1636	1706	S18	W01	.193	16655	18.8	34	-F	3	C		75		
96 HOLL	18	1652	1703	1714	N06	W27	.498	16653	20.7	22	-F	3	C		54		
97 HOLL	18	1704	1705	1712	S08	E67	.916	16659	23.7	8	-F	3	C		20		
GRP82098	18	2027	2036	2105	N26	W14	.583	16653	17.8	38	-N						
HUAN	18	2027		2055D	N25	W15	.575	16653	20.0	28D	-F	1	P				
CULG	18	2029E	2036	2105	N27	W14	.596	16653	19.9	36D	1N		P	2036	300	3.8	
99 CULG	18	2034E	2034E	2040	S16	W13	.269	16655	19.8	6D	-F		P	2034	110	1.1	
100 CULG	18	2122	2127	2130	N18	W66	.938		23.8	8	-F		C	2127	30		
101 CULG	18	2326	2327	2335	S17	W06	.202	16655	19.4	9	-F		C	2327	70	.7	F
102 YUNN	19	0046	0050	0058	N25	W18	.594	16653	20.4	12	-N		C		94	1.2	E
103 CULG	19	0049	0055U	0105	N17	W65	.931		23.9	16	-F		C	0055	60		
GRP82104	19	0134+1	0137+4	0145	S17	W06	.201	16655	18.6	11	-F				160	1.6	F
CULG	19	0138	0141	0147	S17	W07	.210	16655	19.6	13	-F		C	0141	200	2.0	F
YUNN	19	0135	0137	0142	S17	W06	.201	16655	19.5	7	-N		C		126	1.3	
105 YUNN	19	0220	0225	0235	N25	W18	.594	16653	20.4	15	-N		C		79	1.0	E
106 YUNN	19	0547E	0547	0547D	S10	E50	.760	16659	23.0		-F		P		47	.7	
107 CULG	19	0557	0611	0640	N27	W21	.637	16653	20.8	43	?N		C	0611	340	4.4	F
	IMP.1 NO : YUNN																
GRP82108	19	0740>9	0747+8	0808	S08	E52	.783	16659	23.2	28	1N				230	3.7	
YUNN	19	0740E	0754	0805	S09	E51	.772	16659	23.1	25D	2N		C		424	5.6	E
MANI	19	0745E	0747U	0755D	S10	E57	.833	16659	23.6	10D	1N	3	V		100	1.8	F
CULG	19	0746	0751U	0805U	S08	E52	.783	16659	23.2	19D	1N		C	0751	220	3.3	
CATA	19	0750	0755	0810	S08	E52	.809	16668	23.2	20	1B	3		0755	253	4.2	
109 WEND	19	0819		0840	S09	E54	.804	16659	23.4	21	-F		C	0826	38	.7	
GRP82110	19	0925+6	0933+2	0942	S08	E48	.738	16659	23.0	17	-N						D
KHAR	19	0925E		0932D	S08	E48	.738	16659	23.0	7D	-F		V				
YUNN	19	0930	0933	0942	S08	E48	.738	16659	23.0	12	-N		C		63	.9	
WEND	19	0931	0935	0941	S08	E48	.738	16659	23.0	10	-N		C	0935	20	.3	D
111 KHAR	19	0938E		0942D	N09	W36	.633	16653	22.1	4D	-F		V	0942			
112 KHAR	19	1000E		1018	S08	E03	.055	16657	19.6	18D	-F		P	1011	180	1.8	H
113 RAMY	19	1426	1429	1439	N25	W25	.645	16653	21.5	13	-F	3	C		72		
GRP82114	19	1443	1449+1	1514	S23	E55	.821		23.7	31	-N						
WEND	19	1443	1450	1514	S21	E55	.818	16659	23.7	31	-N		C	1450	38	.7	
WEND	19	1445	1449	1456	S26	E56	.830	16678	23.8	11	-F		C	1449	44	.9	
115 WEND	19	1504	1504	1510	S08	E43	.677	16659	22.9	6	-N	*	C	1504	31	.4	
116 WEND	19	1508	1510	1517	N05	W39	.652	16653	22.6	9	-F		C	1510	31	.4	
GRP82117	19	1527+0	1529	1540	S09	E45	.702	16659	23.0	13	-F				25	.4	D
HUAN	19	1527E		1534	S10	E45	.702	16659	23.0	7D	-F	1	P	1527	20	.3	D
WEND	19	1527	1529	1546	S09	E46	.714	16659	23.1	19	-F		C	1529	25	.4	
	19	1717	1725	NO FLARE PATROL													
	19	1740	1754	NO FLARE PATROL													
	19	1946	2019	NO FLARE PATROL													
118 CULG	19	2026	2027	2034	N12	W43	.729	16653	23.1	8	-F	*	C	2027	20	.3	
GRP82119	19	2027+0	2041+0	2114	S10	E48	.738	16659	23.5	47	1N				260	3.9	F
RAMY	19	2027	2041	2114	S11	E49	.749	16659	23.5	47	1N	3	C		247		
CULG	19	2027	2041U	2110U	S10	E47	.726	16659	23.4	43D	1N		C	2041	270	3.8	F
GRP82120	19	2032	2038 2045	2046	N20	W38	.721	16653	17.0	14	-F						
RAMY	19	2032	2038	2041	N23	W34	.704	16653	22.4	9	-F	*	C		103		
CULG	19	2039U	2045	2051	N17	W43	.752	16653	23.1	12D	-F	*	C	2045	80	1.2	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LNGT. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA millionths of Disk	CORR. AREA Sq. Deg.	
121 CULG	19	2206	2213	2230U	S24	W18	.411	16655	21.3	24D	-F		C	2213	110	1.2	
122 PALE	19	2254	2255	2311	S08	E02	.664	16659	23.1	17	-N	3	C		85		
GRP82123	20	0002+0	0002+1	0022	S08	E41	.651	16659	23.1	20	-F				35	.5	DHJ
VORO	20	0002	0003	0023	S08	E42	.664	16659	23.2	21	-F		C	0006	54	.7	DHJ
PALE	20	0002	0002	0021	S09	E40	.638	16659	23.0	19	-F	3	C		21		
124 VORO	20	0222	0225	0234D	S06	E39	.626	16659	23.0	12D	-F		C	0225	54	.7	DJ
GRP82125	20	0323>9	0336 0343	0404	S11	E44	.690	16659	23.4	41	-F						
PALE	20	0323	0343	0357D	S10	E44	.689	16659	23.4	34D	-F	3	C		116		
YUNN	20	0333	0336	0404	S13	E45	.703	16659	23.5	31	-N		C		126	1.7	
126 YUNN	20	0437E		0447	S23	W21	.435	16655	21.8	10D	-N	*	P	0437	94	1.1	E
127 YUNN	20	0437		0455	S11	E40	.638	16659	23.2	18	-N		P	0443	80	1.1	
128 YUNN	20	0530	0602	0613	S10	E38	.611	16659	23.1	43	-N		C		64	.8	EF
GRP82129	20	0722	0725+1	0737	N10	E51	.805	16660	24.1	15	-N						F
YUNN	20	0722	0725	0739	N10	E50	.795	16660	24.1	17	-N		C		80	1.4	
MANI	20	0724E	0726	0735	N10	E52	.814	16660	24.2	11D	-N	3	V		30	.5	F
GRP82130	20	0825+5	0829+6	0917	S08	E34	.555	16659	22.9	52	-N				90	1.1	
YUNN	20	0825	0829	0905	S10	E34	.555	16659	22.9	40	-N		C		113	1.9	
WEND	20	0830	0835	0917	S08	E33	.541	16659	22.8	47	-N		C	0835	100	1.2	
MONT	20	0833E	0833	0917	S08	E35	.569	16659	23.0	44D	-N		C	0833	70		
GRP82131	20	0928+1	0929+1	0949	S09	E34	.555	16659	22.9	21	-N				70	.8	E
YUNN	20	0825	0929	0929D	S10	E34	.555	16659	22.9	64D	-N		P		96	1.2	
MONT	20	0928	0929	0933	S08	E35	.569	16659	23.0	5	-F		C	0929	50		E
WEND	20	0929	0930	0949	S09	E35	.569	16659	23.0	20	-N		C	0930	62	.8	E
KHAR	20	0935E		0952D	S09	E34	.555	16655	22.9	17D	-F		V	0935			
132 KHAR	20	0930	1000	1155	S12	E90	1.000	16677	27.1	145	?F		P	1000			K
	IMP.1 VO : YUNN WEND MONT																
133 KHAR	20	0940E		0955D	N09	W49	.781	16653	24.1	15D	-F		V	0940			
134 WEND	20	1012	1016	1025	N12	E51	.811	16660	24.2	13	-F		C	1016	50	.8	
135 WEND	20	1035		1126	N11	E51	.808	16660	24.3	51	-F		C	1039	91	1.4	E
136 KHAR	20	1035E		1135	N09	W49	.781	16653	24.1	60D	-F	*	V	1039			
GRP82137	20	1119+1	1122+0 1131	1142	S17	W35	.582	16655	17.8	23	-N				70	.9	
WEND	20	1119	1122	1144	S17	W35	.582	16655	23.1	25	-N		C	1122	66	.9	
CATA	20	1120E	1120	1120D	S17	W35	.582	16655	23.1		1N	2		1120	197	2.5	
MONT	20	1120	1122	1134	S16	W35	.579	16655	23.1	14	-N		C	1122	70		
RAMY	20	1130	1131	1142	S17	W36	.595	16655	23.2	12	-F	3	C		48		
138 ABST	20	1208E	1209	1214D	S13	E49	.750	16662	24.2	6D	-F		P	1209	87	1.4	E
139 ABST	20	1208E	1213	1214D	S06	E33	.542	16659	23.0	6D	-N		P	1213	87	1.0	D
140 RAMY	20	1247	1248	1251	N07	W53	.816	16653	24.5	4	-F	3	C		17		
141 WEND	20	1321		1435	S07	E30	.497	16659	22.8	74	-F		C	1326	34	.4	
142 WEND	20	1448	1500	1519	S09	E35	.569	16659	23.2	31	-F		C	1500	36	.5	E
GRP82143	20	1751+2	1753+5	1819	S08	E31	.511	16659	23.1	28	1N				180	2.1	
RAMY	20	1751	1753	1821	S09	E31	.511	16659	23.1	30	1N	3	C		193		
HOLL	20	1753	1758	1817	S08	E32	.526	16659	23.1	24	-N	3	C		166		
GRP82144	20	2016	2018	2059	S08	E27	.451	16659	22.9	43	1B				240	2.9	
RAMY	20	2016	2019	2053	S08	E28	.466	16659	22.9	37	1B	3	C		210		D
CULG	20	2024E	2024E	2105	S08	E27	.451	16659	22.9	41D	1N		P	2024	320	3.5	F
145 CULG	20	2116	2121	2133	S28	E10	.391	16658	21.6	17	-F		C	2121	100	1.1	
146 CULG	20	2131	2136	2158	N13	W53	.832	16653	24.9	27	1N		C	2136	110	2.1	
	20	2158	2303	NO FLARE PATROL													

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LON. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
147 VORO	20	2340	2352	0014	S05	E27	.453	16659	23.0	34	-N		C	2352	116	1.4	EH
GRP82148	21	0018	0026	0101	S09	E28	.466	16659	23.1	43	-N						DJ
VORO	21	0018	0026	0057	S09	E30	.496	16659	23.3	39	-N		C	0026	90	1.0	DJ
YUNN	21	0035E	0035	0104	S09	E26	.435	16659	23.0	29D	-N		C		64	.7	
GRP82149	21	0318+3	0322+2	0343	S11	E29	.483	16659	23.3	25	1N				300	3.4	
CULG	21	0318	0324	0345	S11	E28	.468	16659	23.2	27	1N		C	0324	360	4.1	
YUNN	21	0320	0322	0333	S12	E30	.500	16659	23.4	13	1N		C		401	4.6	
PURP	21	0321	0322	0345	S12	E29	.485	16659	23.3	24	1B		C				
PALE	21	0321	0322	0349	S11	E29	.483	16659	23.3	28	1B	3	C		236		D
MANI	21	0322E	0323	0340D	S11	E30	.498	16659	23.4	18D	-N	3	V		80	1.0	F
150 YUNN	21	0440E	0440	0449	N09	E39	.670	16660	24.1	9D	-N		C		129	1.7	
151 YUNN	21	0453	0456	0500	S12	E26	.440	16659	23.2	7	-N		C		64	.7	
152 ABST	21	0622E	0633	0641D	S12	E88	.998	16665	27.9	19D	?F		P	0633	105		E
	IMP.1 VO : YUNN PURP CULG MITK																
153 CULG	21	0741	0748	0808	S26	E04	.331	16658	21.6	27	-F		C	0748	160	1.6	
154 ABST	21	0835E	0854	0905D	N11	E39	.679	16660	24.3	30D	-F		P	0854	87	1.2	E
155 WEND	21	1133	1141	1151	S12	E78	.974	16677	27.3	18	1N		C	1141	140		
156 WEND	21	1206	1231	1256	S12	E73	.951	16677	27.0	50	?N		C	1231	88		
	IMP.1 VO : RAMY																
GRP82157	21	1337+0	1342+4	1407	S18	W50	.765	16655	17.8	30	-F				70	1.1	
RAMY	21	1337	1346	1407	S18	W50	.765	16655	25.3	30	-F	3	C		55		
WEND	21	1337	1342	1402	S19	W55	.816	16655	25.7	25	-N		C	1342	81	1.5	
KANZ	21	1341E	1346	1407	S18	W50	.765	16655	25.3	26D	-F	1					
GRP82158	21	1444+2	1448	1506	N07	W60	.909	16653	16.8	22	-F						E
			1455														
KANZ	21	1444	1449	1456	N08	W64	.910	16653	26.4	12	-F	2					
WEND	21	1446	1455	1515	N07	W64	.909	16653	26.4	29	-F		C	1455	50	1.2	E
159 WEND	21	1450E		1515D	S11	E74	.956	16677	27.2	25D	-F		C	1455	31		
GRP82160	21	1711+1	1713	1724	S09	E16	.275	16659	22.9	13	-F						E
HUAN	21	1711		1723	S08	E15	.257	16659	22.8	12	-F	1	C				E
RAMY	21	1712	1713	1725	S10	E18	.310	16659	23.1	13	-N	3	C		88		
	21	1815	1910	NO FLARE PATROL													
	21	1959	2017	NO FLARE PATROL													
	21	2242	2245	NO FLARE PATROL													
161 VORO	22	0030	0030	0042	S25	W06	.323	16658	22.5	12	-F		C	0030	81	.9	DJ
162 VORO	22	0033	0034	0038	S10	E72	.946	16677	27.4	5	-F		C	0034	45		D
GRP82163	22	0208+6	0217+4	0232	S11	E70	.934	16665	27.3	24	-N						D
PURP	22	0208	0221	0242	S12	E69	.928	16677	27.3	34	1B		C				
VORO	22	0214	0217	0231	S11	E70	.934	16677	27.3	17	-N		C	0221	134		D
PALE	22	0225E	0225D	0232	S10	E70	.935	16677	27.4	7D	-F	3	C		24		
GRP82164	22	0643>9	0727	0924	N09	E25	.895	16660	24.2	161	-F						EK
			0906														
ABST	22	0643	0727	0903D	N10	E26	.515	16660	24.2	140D	1F		P	0727	201	2.3	EK
KANZ	22	0858	0906	0924	N09	E24	.482	16660	24.2	26	-F	2					
GRP82165	22	1001+1	1004+1	1027	S19	W60	.861	16655	17.9	26	-N				50	1.0	E
KANZ	22	1001	1005	1027	S19	W60	.861	16655	26.9	26	-N	2					
MONT	22	1002	1004	1012	S16	W61	.868	16655	27.0	10	-F		C	1004	50		E
WEND	22	1004E		1034D	S19	W56	.825	16655	26.6	30D	-N		C	1007	63	1.2	
166 WEND	22	1141E		1220D	S19	W58	.843	16655	26.8	39D	-N		C	1156	63	1.3	
167 WEND	22	1235E		1324D	S19	W72	.944	16655	27.9	49D	-F		C	1306	63		
GRP82168	22	1426+0	1430+0	1438	S10	E65	.901	16665	27.5	12	-F						
KANZ	22	1426	1430	1437	S10	E65	.901	16677	27.5	11	-F	1					
WEND	22	1426	1430	1438	S10	E65	.901	16677	27.5	12	-N		C	1430	56		
169 RIGB	22	1859	1911	1923	N11	E90	1.000	16674	29.5	24	?B	3	C	1911	60		
	IMP.1 VO : HOLL HUAN PALE																

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
170 CULG	22	2221	2223	2245	N27	W80	.995	16653	28.9	24	-F		C	2223	20		FK
GRP82171	23	0049>9	0102+8	0113	S11	E58	.842	16665	27.4	24	-N				70	1.3	D
CULG	23	0049	0102	0120U	S13	E58	.842	16677	27.4	31D	-F		C	0102	90	1.5	
PALE	23	0053	0102U	0110	S09	E56	.823	16677	27.2	17	-N	3	C		50		
VORO	23	0102	0102	0113	S11	E58	.842	16677	27.4	11	-N		C	0102	63	1.1	D
GRP82172	23	0142+0	0143+2	0157	S11	E58	.842	16665	27.4	15	-N				40	.8	EJ
YUNN	23	0142E	0143	0148	S14	E58	.842	16677	27.4	2D	-N		C		32	.6	
VORO	23	0142	0148	0157	S11	E58	.842	16677	27.4	15	-N		C	0144	108	1.9	EJ
PALE	23	0142	0145U	0201	S09	E56	.823	16677	27.3	19	-F	3	C		44		
173 CULG	23	0515	0526	0548	N11	E08	.338	16660	23.6	33	-F		C	0526	70	.7	
GRP82174	23	0649E	0649	0650	S07	W07	.121	16659	22.8	5	-F						D
ABST	23	0649E	0650	0654D	S16	W70	.933	16655	28.5	5D	1F		P	0650	87		D
YUNN	23	0650E	0650	0700	S17	W70	.933	16655	28.5	10D	-N		C		32		
175 ABST	23	0649E	0649	0654D	S07	W07	.121	16659	23.8	5D	-F		P	0649	96	1.0	D
176 ABST	23	0649E	0650	0654D	S16	E56	.823	16665	27.5	5D	-F	*	P	0650	105	1.8	E
GRP82177	23	0818+0	0821+1	0831	N11	E06	.327	16660	23.8	13	-N						
KANZ	23	0818	0821	0831	N11	E06	.327	16660	23.8	13	-N	2					
WEND	23	0818	0822	0830	N11	E07	.332	16660	23.9	12	-N		C	0822	31	.3	
GRP82178	23	0905>9	0926+0	0942	S12	E52	.782	16665	27.3	37	-N						K
KHAR	23	0905E	0926	0954	S12	E53	.793	16677	27.4	49D	1F		V	0926			K
KANZ	23	0926	0926	0930	S13	E52	.782	16677	27.3	4	-N	2					
179 KANZ	23	0914	0914	0918	N10	E12	.356	16660	24.3	4	-F	2					
180 KHAR	23	0939E		0944	N16	E90	1.001	16674	30.2	5D	-F		V	0939			H
181 KHAR	23	1115E		1128D	S17	E53	.795	16666	27.4	13D	2F		V	1117			H
	IMP.1 ND : KANZ																
GRP82182	23	1141	1144	1155	S12	E51	.771	16665	27.3	14	-F						D
KANZ	23	1141	1144	1155	S13	E51	.771	16677	27.3	14	-F	2					
KHAR	23	1147E		1147D	S12	E51	.771	16677	27.3		-F		P	1147	50	.8	D
183 KANZ	23	1300	1307	1319	S10	W75	.962	16655	29.2	19	-N	1					
184 KANZ	23	1448	1452	1500	S18	W76	.964	16655	29.3	12	-N	1					
185 CULG	23	2152	2156	2210	S10	W09	.163	16659	24.6	18	-N		C	2156	90	.9	
186 CULG	23	2301	2304	2330	N08	E03	.265	16660	24.2	29	-F		C	2304	80	.8	F
187 CULG	23	2318	2329	2342	S10	W10	.179	16659	24.7	24	-F		C	2329	40	.4	
188 CULG	23	2357E	2400	0030	S06	W17	.291	16659	25.3	33D	-N		P	2400	160	1.6	
189 VORO	24	0236	0238	0243	N11	E00	.311	16660	24.1	7	-F		C	0238	81	.9	D
GRP82190	24	0244	0245+1	0255	S13	E41	.653	16665	27.2	11	-F				90	1.2	EL
VORO	24	0244	0245	0255	S12	E41	.652	16677	27.2	11	-F		C	0245	108		EL
YUNN	24	0245E	0246	0255	S14	E42	.666	16677	27.3	10D	-N		C		80	1.1	
191 CULG	24	0625	0631	0652	N38	W70	.982	16656	29.5	27	2F		C	0631	140		K
	IMP.1 ND : YUNN ABST																
192 CULG	24	0742	0747	0805	S06	W08	.140	16659	24.9	23	-N		C	0747	80	.8	
193 ABST	24	0805	0809	0838D	N09	W04	.286	16660	24.6	33D	-F		P	0809	148	1.6	E
194 KANZ	24	1121	1125	1132	S26	E74	.954	16673	30.0	11	-F	2					
GRP82195	24	1154+1	1159	1221	S25	E76	.963	16673	99.2	27	-N						
WEND	24	1154E		1223D	S25	E78	.971	16673	30.3	29D	-N		C	1158	38		
KANZ	24	1155	1159	1218	S25	E74	.954	16673	30.0	23	-N	2					
196 KANZ	24	1218	1222	1230	S28	E66	.910	16672	29.5	12	-F	2					

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP82197	24	1316+2	1316+2	1332	S25	E79	.975	16673	99.5	16	-F						
RAMY	24	1316	1316	1332	S24	E79	.975	16673	30.5	16	-F	3	C				
KANZ	24	1318	1318	1330	S26	E79	.974	16673	30.5	12	-F	2					
WEND	24	1319E		1335D	S25	E77	.967	16673	30.3	16D	-N		C	1323	38		
198 WEND	24	1524E		1555D	N10	W06	.311	16660	25.1	31D	-F		C	1537	31	.3	
199 RAMY	24	1756	1806	1812	S23	E76	.963	16673	30.4	16	-F	3	C				
200 VORO	24	2300	2300	2303	S16	E38	.618	16665	27.8	3	-F		C	2300	90	1.2	D
201 VORO	24	2334	2334	2335	S14	E08	.998	16684	31.6	1	-F		C	2334	45		DH
202 CULG	25	0121	0135	0156	S06	W33	.542	16659	27.5	35	-N		C	0135	140	1.7	
GRP82203	25	0138+4	0144+6	0153	N05	W21	.410	16668	23.5	15	-F						DHJ
CULG	25	0138	0150	0155	N05	W21	.410	16668	26.6	17	-F	*	C	0150	170	1.9	
VORO	25	0142	0144	0151	N05	W21	.410	16668	26.6	9	-F	*	C	0144	72	.8	DHJ
204 CULG	25	0139	0153	0217	N08	W11	.321	16660	25.9	38	?F		C	0153	230	2.3	
	IMP.1 VD : VORO MITK																
205 VORO	25	0148	0149	0151	S10	E80	.982	16676	31.1	3	-N		C	0149	90		D
GRP82206	25	0446+9	0458+0	0514	N18	E72	.967	16674	99.6	28	1N				250		
CULG	25	0446	0458	0520	N18	E70	.959	16674	30.4	34	2N		C	0458	340		F
MITK	25	0455	0458	0507	N19	E75	.979	16674	30.8	12	1F		C	0458	170		E
GRP82207	25	0516	0523	0546	N10	W18	.420	16660	23.9	30	-F						F
			0538														
CULG	25	0516	0523	0540	N09	W15	.375	16660	26.3	24	-F		C	0523	120	1.2	F
CULG	25	0533	0538	0546	N11	W22	.476	16660	26.9	13	-F		C	0538	50	.6	
208 CULG	25	0641	0647	0708	N17	E69	.953	16674	30.5	27	?N		C	0647	160		
	IMP.1 VD : MITK ABST																
209 KANZ	25	0828	0915	0957	S12	E78	.974	16676	31.2	89	-N	2					U
GRP82210	25	0837+3	0847	1001	N10	W16	.397	16660	24.2	84	-F				130	1.8	E
WEND	25	0837E		0921D	N10	W16	.397	16660	26.6	84D	-F		C	0848	86	1.0	E
KANZ	25	0840		1001	N11	W17	.420	16660	26.6	81	-F	1					
ABST	25	0846E	0847	0857D	N10	W16	.397	16660	26.6	11D	-F		P	0847	175	2.0	F
GRP82211	25	1059+4	1106+1	1118	S14	E72	.945	16676	99.9	19	-F						
KANZ	25	1059	1106	1114	S15	E73	.950	16676	30.9	15	-F	1					
WEND	25	1103	1107	1122	S13	E71	.939	16676	30.8	19	-N		C	1107	44		
212 WEND	25	1501E		1610D	S25	E63	.887	16673	30.4	69D	-F		C	1510	63		E
GRP82213	25	1507>9	1533	1539	S12	E70	.934	16676	99.9	32	-F				30		E
WEND	25	1507E		1610D	S13	E70	.933	16676	30.9	63D	-F		C	1530	44		E
RAMY	25	1523	1533	1539	S12	E70	.934	16676	30.9	16	-F	3	C		24		
GRP82214	25	1545E	1555+2	1645	N15	E90	1.001	16680	1.4	60	-N						
			1625														
BIGB	25	1545E	1557	1649	N12	E90	1.000	16680	1.4	64D	1N	3	P	1557	80		
HOLL	25	1550E	1555U	1618	N18	E90	1.001	16680	1.4	28D	-B	3	C				
RAMY	25	1620E	1625U	1645	N15	E90	1.001	16680	1.4	25D	-N	3	C				
GRP82215	25	1620+1	1622+0	1633	S11	E69	.928	16676	99.9	13	-N				50		
RAMY	25	1620	1622	1633	S12	E69	.928	16676	30.9	13	-B	3	C		58		
HOLL	25	1621	1622	1633	S11	E69	.928	16676	30.9	12	-N	3	C		53		
216 RAMY	25	1636	1643	1651	S24	E65	.901	16673	30.6	15	-F	3	C		18		
GRP82217	25	1736+7	1746+1	1753	S23	E65	.901	16673	99.6	17	-F				30		
RAMY	25	1736	1746	1751	S23	E65	.901	16673	30.6	15	-F	3	C		32		
HOLL	25	1743	1747	1755	S23	E65	.901	16673	30.6	12	-F	3	C		30		
218 RAMY	25	1902	1905	1922	S24	E64	.894	16673	30.6	20	-N	3	C		38		
GRP82219	25	1950+5	1955+0	2010	S11	E72	.946	16676	.2	20	-F						
RAMY	25	1950	1955	2011	S11	E73	.951	16676	31.3	21	-F	3	C				
HOLL	25	1955	1955	2008	S11	E71	.940	16676	31.2	13	-F	3	C		30		

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GRP82220	25	2000	2005+0	2026	N11	E90	1.000	16680	1.6	26	-B						
BIGB	25	2000	2005	2032	N10	E90	1.000	16681	1.6	32	1B	3	C	2005	80		
HOLL	25	2003E	2005	2020	N13	E90	1.000	16680	1.6	17D	-B	3	C				
GRP82221	25	2104	2154	2311	S09	E90	1.000		1.6	127	?B						
IMP.1 WD : HOLL CULG																	
BIGB	25	2104	2154	2311	S09	E90	1.000	16689	1.6	127	1B	3	C	2154	70		
222 CULG	25	2201	2203	2209	S14	E68	.920	16676	31.0	8	?N		C	2203	140		
IMP.1 WD : BIGB HOLL																	
223 CULG	25	2232	2234	2240	N10	W24	.491	16660	27.7	8	-F		C	2234	40	.4	
224 CULG	25	2340	2356	0040	S07	W40	.639	16659	29.0	60	?F		C	2356	310	4.2	
IMP.1 WD : BIGB HOLL PALE																	
GRP82225	26	0021+1	0028+3	0036	S11	E63	.885	16676	99.7	15	-F				70	1.5	D
CULG	26	0021	0031	0038	S11	E66	.908	16676	31.0	17	-F		C	0031	80	1.9	T
VORO	26	0022	0028	0034	S11	E60	.860	16676	30.5	12	-F		C	0028	72		D
226 VORO	26	0026	0028	0034	S24	E62	.879	16673	30.7	8	?N		C	0028	125		E
IMP.1 WD : CULG																	
GRP82227	26	0152+2	0154+3	0210	S11	E64	.893	16676	99.9	18	-F				45	1.0	D
CULG	26	0152	0154	0214	S11	E65	.900	16676	31.0	22	-F		C	0154	80	1.8	T
VORO	26	0152	0154	0207	S11	E66	.908	16676	31.0	15	-N		C	0154	63		D
PALE	26	0153	0157	0211	S08	E63	.886	16676	30.8	18	-F	3	C		27		
YUNN	26	0154	0155	0208	S14	E64	.892	16676	30.9	14	-N		C		32	.7	
GRP82228	26	0321+0	0322+0	0329	S11	E64	.893	16676	99.9	8	1N				130	3.0	
CULG	26	0321	0322	0329	S11	E65	.900	16676	31.0	8	1N		C	0322	160	3.6	T
PALE	26	0321	0322	0331	S08	E62	.878	16676	30.8	10	-N	3	C		98		
YUNN	26	0322E	0322	0326	S14	E64	.892	16676	30.9	4D	1N		C		129	2.9	
229 CULG	26	0330	0337U	0347	N10	W37	.651	16668	28.9	17	-F		C	0337	70	.9	
GRP82230	26	0520+2	0525+2	0540	S27	E53	.808	16673	99.2	20	-N						H
CULG	26	0520	0527	0545	S27	E55	.826	16673	30.3	25	1F		C	0527	290	4.9	F
YUNN	26	0522	0525	0534	S28	E51	.792	16673	30.0	12	-N		C		48	.9	EH
231 CULG	26	0539	0542	0546	S11	E64	.893	16676	31.0	7	-F		C	0542	80	1.5	T
232 CULG	26	0551	0601	0610	S12	E07	.146	16677	26.8	19	?F		C	0601	210	2.1	L
IMP.1 WD : YUNN ABST																	
GRP82233	26	0631+1	0633+1	0637	S12	E63	.884	16676	.0	6	-F				90	2.0	D
ABST	26	0631	0633	0636	S14	E63	.884	16676	31.0	5	1F		C	0633	96		D
CULG	26	0632	0634	0638	S11	E64	.893	16676	31.1	6	-F		C	0634	80	1.8	T
234 ABST	26	0638	0642	0644D	S27	E61	.874	16673	30.9	6D	?F		P	0642	105		D
IMP.1 WD : YUNN																	
GRP82235	26	0722+2	0726+0	0756	N12	W30	.580	16660	24.1	34	-N				140	1.7	
ABST	26	0722	0726	0738	N14	W29	.584	16660	28.5	16	-N		C	0726	131	1.7	E
CULG	26	0724	0726	0758	N10	W30	.566	16660	28.6	34	-N		C	0726	160	2.0	F
ABST	26	0724	0729	0754	N13	W33	.622	16660	28.8	30	-F		C	0729	87	1.1	D
236 ABST	26	0750E	0754	0809	S16	E66	.906	16676	31.3	19D	-F		P	0754	87		DJ
237 ABST	26	0808E	0811	0827	S27	E58	.851	16673	30.7	19D	-F		P	0811	87	1.6	DJ
GRP82238	26	0834+6	0843+3	0858	S15	E64	.892	16676	.2	24	-N				70	1.6	D
ABST	26	0834	0843	0859	S16	E65	.899	16676	31.2	25	-N		C	0843	87		D
KANZ	26	0838	0846	0858	S16	E63	.884	16676	31.1	20	-N	3					
MONT	26	0838	0845	0857	S15	E65	.899	16676	31.2	19	-N		C	0845	70		D
HTPR	26	0840	0846	0854	S14	E59	.850	16676	30.8	14	-B		C	0846	60	1.2	
GRP82239	26	0918+8	0925+2	0934	S25	E53	.805	16673	99.4	16	1N				200	3.5	U
MEND	26	0918E		0943D	S24	E54	.812	16673	30.4	25D	-N		C	0928	106	2.0	
HTPR	26	0920	0926	0932	S24	E50	.774	16673	30.1	12	1N		C	0926	160	2.5	
KANZ	26	0921	0925	0936	S25	E53	.805	16673	30.4	15	-N	2					U
MONT	26	0922	0927	0933	S25	E55	.823	16673	30.5	11	1N		C	0927	250		
YUNN	26	0926	0927	0929	S25	E52	.795	16673	30.3	3	1N		C		241	3.9	

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GRP82240	26	0938+2	0942+2	0958	S15	E61	.868	16676	.0	20	-N				50	1.0	
HTPR	26	0938	0944	1005	S14	E58	.841	16676	30.8	27	-N		C	0944	60	1.1	E
WEND	26	0939		0958	S15	E61	.868	16676	31.0	19	-N		C	0943	44	1.0	
KANZ	26	0940	0944	0956	S16	E61	.868	16676	31.0	16	-N	2					
MONT	26	0940	0942	0945D	S15	E65	.899	16676	31.3	5D	-F		C	0942	50		D
YUNN	26	0942E	0942	0944D	S16	E62	.876	16676	31.1	2D	-N		P		48	1.0	
GRP82241	26	1015+0	1018+0	1029	S24	E53	.803	16673	99.4	14	-F				60	1.0	E
KANZ	26	1015	1018	1026	S25	E53	.805	16673	30.4	11	-F	2					
HTPR	26	1015	1019	1029	S24	E50	.778	16673	30.2	14	-N		C	1018	80	1.2	E
WEND	26	1015E		1031D	S24	E58	.812	16673	30.5	16D	-F		C	1019	37	.7	E
242 MONT	26	1016	1020	1029	S15	E65	.899	16676	31.3	13	-F		C	1020	60		E
GRP82243	26	1030+2	1034+2	1040	S23	E55	.820	16673	99.6	10	-N				60	1.1	D
HTPR	26	1013	1035	1039	S24	E50	.778	16673	30.2	26	-B	*	C	1035	60	.9	
KANZ	26	1030	1034	1041	S25	E56	.831	16673	30.6	11	-N	*					
WEND	26	1031	1036	1044	S23	E55	.820	16673	30.6	13	-F	*	C	1036	84	.9	
MONT	26	1032	1034	1038	S23	E58	.846	16673	30.8	6	-N	*	C	1034	70		D
GRP82244	26	1150+2	1153+3	1201	S15	E60	.859	16676	.0	11	-N				100	2.0	E
KANZ	26	1150	1154	1201	S16	E61	.868	16676	31.1	11	-N	2					
MONT	26	1150	1153	1158	S15	E64	.892	16676	31.3	8	-B		C	1153	100		
WEND	26	1151	1156	1201	S15	E60	.859	16676	31.0	10	-N		C	1156	75	1.6	
HTPR	26	1152	1159	1200	S14	E57	.832	16676	30.8	8	-B		C	1158	110	2.0	E
245 MONT	26	1227	1229	1237	S25	E58	.814	16673	30.6	10	-F		C	1229	50		E
GRP82246	26	1342	1343	1353	S08	E05	.088	16665	26.9	11	-F						E
			1346														
HTPR	26	1342	1343	1346	S08	E06	.105	16677	27.0	4	-F		C	1343	20	.2	E
HTPR	26	1343	1346	1353	S09	E05	.092	16677	26.9	10	-F		C	1353	10	.1	
247 KANZ	26	1418	1422	1426	N14	E40	.707	16674	29.6	8	-F	2					
GRP82248	26	1450+2	1456+2	1505	S09	E07	.125	16665	27.1	15	-N				40	.4	E
HTPR	26	1450	1456	1503	S09	E04	.074	16677	26.9	13	-B		C	1456	40	.4	E
WEND	26	1452	1458	1506	S10	E10	.179	16677	27.4	14	-N		C	1458	37	.4	
249 HTPR	26	1525	1527	1534	S14	E55	.813	16676	30.8	9	-N		C	1527	60	1.0	E
250 HOLL	26	1625	1627	1634	S12	E60	.859	16676	31.2	9	-N	3	C		84		
251 HOLL	26	1818	1818	1824	S12	E59	.851	16676	31.2	6	-F	3	C		35		
252 CULG	26	2102	2106	2107E	S13	E00	.102	16677	26.9	5D	-F		P	2106	170	1.7	
253 CULG	26	2227	2229	2238	S09	W58	.803	16659	31.0	11	-F		C	2229	60	1.0	
GRP82254	27	0004	0009	0022	N21	E78	.989	16680	1.9	18	-F				50		D
CULG	27	0004	0008	0022	N21	E78	.989	16683	1.9	18	-F		C	0008	80		
VORO	27	0008E		0021	N21	E78	.989	16683	1.9	13D	-F		C	0009	72		D
GRP82255	27	0053>9	0059	0104	S23	E46	.730	16673	99.5	51	-N						L
			0117														
VORO	27	0053	0058	0132	S23	E46	.730	16673	30.5	39	-N		C	0058	63	.9	DL
CULG	27	0105	0117U	0155	S24	E46	.733	16673	30.5	50	1F		C	0117	220	3.3	TFL
GRP82256	27	0144+5	0150+1	0159	S08	E03	.054	16665	27.3	15	-F				70	.7	D
CULG	27	0144	0150	0203	S08	E01	.022	16677	27.1	19	-F		C	0150	70	.7	
VORO	27	0149	0151	0155	S09	E05	.092	16677	27.5	6	-F		C	0151	81	.8	D
257 CULG	27	0154	0156	0208	S09	W56	.823	16659	31.3	14	-N		C	0156	100	1.7	
GRP82258	27	0224+3	0226+4	0239	S12	E02	.091	16665	27.2	15	-F				80	.8	D
VORO	27	0224	0226	0238	S12	E05	.125	16677	27.5	14	-N		C	0226	143	1.5	D
CULG	27	0224	0230U	0249	S11	E02	.075	16677	27.2	25	-F		C	0230	80	.8	
PALE	27	0225	0230	0240	S13	E02	.107	16677	27.3	15	-F	3	C		53		
YUNN	27	0227	0230	0233	S12	E02	.091	16677	27.3	6	-N		C		80	.8	
GRP82259	27	0240	0242	0250	S13	E03	.113	16665	27.3	10	-F						E
VORO	27	0240	0242	0249D	S13	E04	.101	16677	27.4	9D	-F		C	0242	170	1.7	E
YUNN	27	0244E	0244	0250	S13	E03	.113	16677	27.3	6D	-N		C		32	.3	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP82260	27	0327+0	0330	0425	S13	E55	.813	16676	.3	58	1N				200	3.5	EIKU
			0343+8														
CULG	27	0327	0351E	0451	S14	E55	.813	16676	31.3	84	2N		P	0351	440	7.5	UI
PALE	27	0327	0346	0355D	S12	E55	.813	16676	31.3	28D	1B	3	C		189		D
YUNN	27	0327	0346	0420	S14	E53	.793	16676	31.1	53	1B		C		209	3.6	EK
MANI	27	0328E	0343	0425D	S12	E55	.813	16676	31.3	57D	1N	3	V		150	2.2	
MANI	27	0328E	0330	0425D	S12	E55	.813	16676	31.3	57D	-N	3	V		80	1.2	EU
GRP82261	27	0413+3	0421+7	0443	S24	E45	.722	16673	99.6	30	1N						FHU
CULG	27	0413	0428U	0454	S24	E45	.722	16673	30.6	41	2F		C	0428	480	6.7	UT
YUNN	27	0416	0421	0434	S24	E42	.689	16673	30.3	18	1N		C		193	2.7	H
MANI	27	0423E	0423U	0443D	S25	E45	.725	16673	30.6	20D	-N	3	V		90	1.4	F
GRP82262	27	0558>9	0600	0628	S09	W03	.061	16665	27.0	30	-F				90	.9	EJV
			0618+5														
ABST	27	0558E	0600	0647	S08	W03	.054	16677	27.5	49D	-N		P	0600	131	1.4	EJ
CULG	27	0618	0618	0623	S10	W05	.099	16677	27.6	5	-F		C	0618	90	.9	
ABST	27	0622	0623	0628	S09	W02	.047	16677	27.4	6	-F		C	0623	96	1.0	EV
263 ABST	27	0720	0729	0744	S08	W02	.037	16677	27.5	24	-F		C	0729	87	.9	E
264 ABST	27	0722	0723	0729	N14	E43	.739	16674	30.5	7	-F		C	0723	70	1.0	DV
265 ABST	27	0728	0739	0745	N17	W37	.693	16660	30.1	17	7N		C	0739	175	2.2	D
		IMP.1	NO : PURP	CULG													
GRP82266	27	0745+3	0746+2	0755	N12	W49	.792	16660	23.6	10	1N				160	2.6	EV
ABST	27	0745	0746	0753	N13	W47	.776	16660	30.8	8	1N	*	C	0746	175	2.8	EV
CULG	27	0746	0748	0755D	N10	W49	.785	16668	31.0	9D	1N		P	0748	140	2.2	
KANZ	27	0748	0749	0756	N12	W49	.792	16660	31.0	8	-N	*					
GRP82267	27	0810+6	0813+7	0835	S13	W07	.157	16665	26.8	25	-F				60	.6	EJ
ABST	27	0750	0755	0815	S09	W03	.061	16677	27.6	25	-F		C	0755	96	1.0	EJ
ABST	27	0810	0813	0831D	S14	W06	.157	16677	27.8	21D	-F		P	0813	105	1.1	EJ
WEND	27	0814	0819	0841	S13	W07	.157	16677	27.9	27	-F		C	0819	63	.7	
MANI	27	0814E	0814U	0826D	S12	W07	.146	16677	27.9	12D	-F	3	V		20	.2	
CATA	27	0815	0820	0845	S14	W07	.168	16677	27.9	30	-N	2		0820	56	.6	
KANZ	27	0816	0816	0840	S14	W07	.168	16677	27.9	24	-N	2					
268 ABST	27	0835E	0835	0839D	N15	E39	.702	16674	30.3	4D	-F		P	0835	87	1.2	DJ
269 KANZ	27	0856	0900	0916	S08	W08	.071	16677	27.7	20	-F	2					
GRP82270	27	0900+4	0901	0944	N15	E38	.691	16674	99.2	84	-F				60	.8	JV
			0935+2														
ABST	27	0900	0901	0903D	N13	E40	.702	16674	30.4	3D	-N		P	0901	96	1.4	DJV
KANZ	27	0904	0936	0944	N15	E37	.680	16674	30.2	40	-F	2					
MONT	27	0923	0937	0943	N15	E39	.702	16674	30.3	20	-F		C	0937	50		E
CATA	27	0935	0935	0945	N16	E37	.686	16674	30.2	10	-N	2		0935	84	1.2	
GRP82271	27	1143+1	1144+3	1153	S13	W01	.103	16665	27.4	10	-N				70	.7	E
HTPR	27	1110	1130	1200	S08	W07	.122	16677	28.0	50	-F		C	1130	20	.2	
MONT	27	1143	1145	1152	S13	W01	.103	16677	27.6	9	-N		C	1145	70		E
WEND	27	1144	1147	1153	S14	W01	.120	16677	27.6	9	-N		C	1147	66	.7	
KANZ	27	1144	1144	1152	S13	W01	.103	16677	27.6	8	-N	2					
HTPR	27	1145	1146	1155	S12	W02	.091	16677	27.6	10	-N		C	1146	60	.6	E
272 HTPR	27	1213	1216	1238	S32	W38	.684	16678	30.4	25	-F		C	1216	30	.4	E
GRP82273	27	1303+1	1306+1	1317	S32	W38	.684	16678	24.7	14	-F						E
HTPR	27	1303	1306	1318	S32	W38	.684	16678	30.4	15	-F		C	1306	20	.3	E
KANZ	27	1304	1307	1315	S32	W38	.684	16678	30.4	11	-F	1					
274 KANZ	27	1311	1315	1334	N19	E76	.983	16683	2.2	23	-N	1					
GRP82275	27	1429+3	1438+1	1511	S10	W07	.130	16665	27.1	42	-N				60	.6	E
			1448+2														
WEND	27	1429	1438	1449	S08	W07	.122	16677	28.1	20	-N		C	1438	25	.3	
HTPR	27	1432	1439	1457	S08	W03	.054	16677	27.8	25	-F		C	1439	30	.3	
HTPR	27	1442	1448	1510	S12	W11	.206	16677	28.4	28	-N		C	1448	40	.4	E
WEND	27	1444	1450	1511	S13	W06	.144	16677	28.1	27	-N		C	1450	94	1.0	E
KANZ	27	1445	1448	1459D	S13	W09	.184	16677	28.3	14D	-N	1					
276 WEND	27	1442	1446	1530	S05	W57	.836	16659	31.9	48	-N		C	1446	19	.4	D
277 WEND	27	1501	1509	1524	S32	W42	.722	16678	30.8	23	-F		C	1509	56	.9	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
278 HOLL	27	1930	1932	1938	N24	E83	.998	16688	3.0	8	-F	3	C				
279 CULG	27	2201	2206	2214	S12	W08	.161	16677	28.5	13	-N		C	2206	160	1.6	
280 CULG	27	2231	2244E	2305	N14	W58	.877	16660	1.3	34	-N		P	2244	100	2.0	
281 CULG	27	2317	2322	2341	N14	W58	.877	16660	1.3	24	?F		C	2322	120	2.4	
	IMP.1 NO : HOLL VORO																
282 VORO	28	0128	0130	0134	N07	E06	.266	16671	28.5	6	-F		C	0130	63	.7	D
GRP82283	28	0144+5	0151+5	0200	N26	W31	.705	16661	29.7	16	-N				90	1.2	E
VORO	28	0144	0152	0200	N24	W32	.696	16661	30.5	16	-N		C	0152	134	1.9	E
PURP	28	0149	0156	0200	N26	W31	.705	16661	30.4	11	-F		C				
MANI	28	0151E	0151U	0200D	N26	W31	.705	16661	30.4	9D	-N	3	V		60	.9	
GRP82284	28	0442	0452	0515	S28	E23	.501	16673	29.9	33	-N				90	1.1	F
CULG	28	0442	0452	0520	S28	E23	.501	16672	29.9	38	-N		C	0452	120	1.4	F
YUNN	28	0446E	0446	0510	S29	E23	.511	16672	29.9	24D	-N		C		64	.8	
285 CULG	28	0528	0528	0537	S07	W15	.257	16677	29.4	9	-N		C	0528	70	.7	
286 CULG	28	0700E	0700U	0711	S08	W60	.861	16659	1.8	110	-F		P	0700	80	1.6	
GRP82287	28	1104+1	1108+2	1143	N19	E59	.897	16683	1.9	39	-N						
KANZ	28	1104	1108	1135	N19	E59	.897	16683	1.9	31	-F	2					
CATA	28	1105	1110	1150	N19	E60	.904	16683	2.0	45	1N	2		1110	84	2.0	
288 KANZ	28	1123	1127	1131	N11	W09	.347	16671	29.1	8	-F	2					
289 HTPR	28	1150	1156	1202	S32	W52	.811	16678	1.4	12	-F		C	1156	20	.3	
GRP82290	28	1205+2	1205+5	1256	S23	E28	.518	16673	99.6	51	1B				360	4.3	E
CATA	28	1205	1205	1255	S23	E28	.518	16673	30.6	50	1B	2		1205	365	4.4	
KANZ	28	1206	1210	1256	S23	E23	.457	16673	30.2	50	1B	2					
HTPR	28	1206	1207	1300	S24	E28	.525	16673	30.6	54	1B		C	1207	300	3.5	E
WEND	28	1207	1208	1239D	S25	E30	.555	16673	30.8	32D	1B		C	1208	390	5.1	
HTPR	28	1207	1207	1300	S25	E25	.497	16673	30.4	53	-F		C	1207	20	.2	
MONT	28	1224E	1224	1244	S23	E29	.530	16673	30.7	20D	-N		C	1224	200		
GRP82291	28	1223+0	1228+6	1256	N01	E56	.838	16681	1.7	33	-F						E
KANZ	28	1223	1234	1307	S00	E54	.812	16681	1.6	44	-N	2					
HTPR	28	1223	1228	1245	N02	E58	.858	16681	1.9	22	-F		C	1228	60	1.1	E
292 HTPR	28	1410	1414	1416	S32	W53	.820	16678	1.6	6	-F		C	1414	20	.3	
GRP82293	28	1412+2	1414+3	1433	N15	E21	.507	16674	99.2	21	-F						E
HTPR	28	1412	1417	1435	N15	E23	.527	16674	30.3	23	-F		C	1417	20	.2	E
KANZ	28	1414	1414	1430	N15	E19	.487	16674	30.0	16	-N	2					
294 CULG	28	2117E	2118U	2145	N16	E54	.850	16683	1.9	28D	-N		P	2118	110	2.0	F
295 CULG	28	2142	2147	2155	S24	E23	.465	16673	30.6	13	-N		C	2147	100	1.1	U
296 CULG	28	2151	2206	2234	N17	E50	.819	16683	1.7	53	?F		C	2206	420	6.7	F
	IMP.2 NO : HOLL																
297 CULG	28	2236	2241	2305	S16	E59	.851	16682	2.4	29	?N		C	2241	480	8.6	SIF
	IMP.2 NO : HOLL																
298 CULG	28	2354	2359	0007	N05	W07	.243	16671	29.5	13	-F		C	2359	120	1.2	
299 YUNN	29	0033	0036	0044	S08	W72	.947	16659	3.4	11	-N		C		48		E
300 YUNN	29	0041	0042	0045	S00	E48	.748	16681	1.6	4	-N		C		48	.7	
301 VORO	29	0147	0148	0157	S25	E19	.329	16673	30.5	10	-N		C	0148	72	.8	D
GRP82302	29	0148>9	0220+2	0300	N12	E56	.856	16683	2.3	72	1N						F
VORO	29	0148	0220	0303D	N12	E57	.865	16683	2.3	75D	2F		C	0220	430	5.6	F
CULG	29	0158	0222	0300	N12	E56	.856	16683	2.3	62	1N		C	0222	190	3.5	F
YUNN	29	0215	0220	0235	N14	E54	.845	16683	2.1	20	-N		C		90	1.5	E
303 CULG	29	0158	0204	0211	S08	W28	.466	16677	31.2	13	-F		C	0204	80	.9	L
304 CULG	29	0210	0217	0232	S25	E20	.340	16673	30.6	22	-F		C	0217	120	1.5	

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR. AREA Sq. Deg.	
305 VORO	29	0227	0230	0237	N01	E48	.750	16681	1.7	10	-B		C	0230	81	1.2	D
306 ABST	29	0600E	0600	0627	S25	W45	.725	16686	1.6	27D	?F		P	0600	146	2.1	E
	INP.1 NO : MITK CULG YUNN																
307 ABST	29	0600E	0627	0648D	N18	W45	.778	16679	1.6	48D	-F		P	0627	87	1.4	D
308 CULG	29	0610	0612	0619	S08	W78	.975	16659	4.1	9	-F		C	0612	80		T
309 CULG	29	0639U	0653	0720	S26	W45	.728	16686	1.7	41D	?N		P	0653	250	3.5	L
	INP.1 NO : MITK ABST																
310 CULG	29	0655E	0657	0703	S06	W27	.852	16677	31.3	8D	-F		P	0657	80	.9	
311 CULG	29	0714	0718	0730	S08	W78	.975	16659	4.2	16	-F		C	0718	70		T
312 ABST	29	0739	0742	0747	S26	W47	.748	16686	1.8	8	-F		C	0742	96	1.5	D
GRP82313	29	0832+3	0836+4	0850	S23	E17	.386	16673	99.6	18	-N				170	1.9	E
ABST	29	0832	0836	0853	S24	E18	.408	16673	30.7	21	1N		C	0836	192	2.2	E
CATA	29	0835	0840	0850D	S23	E17	.386	16673	30.6	15D	-N	2		0840	169	1.9	
YUNN	29	0840E	0840	0847	S23	E17	.386	16673	30.6	7D	-N		C		161	1.9	
314 CATA	29	0840	0840	0850D	S18	E43	.685	16682	1.6	10D	-N	2		0840	84	1.2	
315 YUNN	29	0914	0918	0925	S25	W46	.735	16686	1.8	11	-N		C		88	.7	
316 CATA	29	1020E	1020	1030	S11	W78	.978	16659	4.3	10D	-N	2		1020	85		
	29	1040	1100	NO FLARE PATROL													
317 HTPR	29	1203	1209	1220	S13	E22	.381	16676	31.2	17	-F		C	1209	20	.2	
318 HTPR	29	1302	1303	1309	N03	E42	.684	16681	1.7	7	-F		C	1303	20	.3	E
GRP82319	29	1355	1359+5	1422	S26	W49	.768	16686	25.9	27	-F						
HTPR	29	1355	1359	1430	S25	W50	.776	16686	2.3	35	-F		C	1359	60	.9	
RAMY	29	1401E	1404	1413	S28	W49	.770	16686	2.3	12D	-F	3	C		24		
GRP82320	29	1441+1	1444+1	1513	S24	E14	.366	16673	99.7	32	1B				430	4.7	E
HTPR	29	1441	1445	1510	S24	E13	.357	16673	30.6	29	1N		C	1445	250	2.7	E
HOLL	29	1441	1445	1513	S22	E18	.342	16673	30.7	32	1B	3	C		429		
RAMY	29	1442	1444	1535	S25	E14	.379	16673	30.7	53	2B	3	C		529		
321 RAMY	29	1637	1639	1647	S27	W51	.790	16686	2.5	10	-N	3	C		21		
322 HOLL	29	1655	1701	1713	N01	E40	.653	16681	1.7	18	-F	3	C		37		
323 RAMY	29	1711	1712	1756	S27	W52	.799	16686	2.6	45	-N	3	C		26		
324 RAMY	29	1903	1905	1906	S27	W51	.790	16686	2.6	3	-N	3	C		16		
325 PALE	29	2005	2010	2021	N15	E39	.702	16683	1.8	16	-F	3	C		29		
GRP82326	29	2007+1	2009+0	2028	N02	E35	.589	16681	1.5	21	-F				35	.4	
HOLL	29	2007	2009	2028	N01	E38	.626	16681	1.7	21	-F	3	C		35		
PALE	29	2008	2009	2028	N03	E33	.566	16681	1.5	20	-F	3	C		30		
GRP82327	29	2013+1	2016+1	2030	S16	E40	.644	16682	1.8	17	-N				90	1.2	D
BIGB	29	2013	2016	2030	S19	E40	.651	16682	1.8	17	-N	2	C	2016	90	1.2	
PALE	29	2013	2016	2029	S15	E34	.562	16682	1.4	16	1N	3	C		255		D
HOLL	29	2014	2017	2026	S16	E34	.565	16682	1.4	12	-N	3	C		53		
HOLL	29	2015	2017	2030	S16	E46	.717	16682	2.3	15	-F	3	C		39		
GRP82328	29	2017	2056+3 2117	2138	S28	W54	.819	16686	25.8	81	-F				50	.9	D
PALE	29	2017	2056	2138	S28	W53	.810	16686	2.8	81	-F	3	C		66		D
CULG	29	2042U	2117	2138D	S25	W54	.814	16686	2.9	56D	1N		P	2117	120	2.2	
HOLL	29	2049	2059	2123	S29	W54	.821	16686	2.9	34	-F	3	C		26		

Hα SOLAR FLARES

FEBRUARY 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX HER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
329 CULG	29	2204	2220	2301	N19	E48	.810	16483	2.5	57	-F		C	2220	110	1.8	F
330 CULG	29	2218	2224	2247	S13	E14	.258	16476	31.0	29	-N		C	2224	60	.6	
331 CULG	29	2251	2309	2354	S08	W80	.982	16659	5.0	63	?F		C	2309	300		

IMP.2 VO : BIGB HOLL

"REMARKS":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of CaII.
P = Flare shows helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

DAILY FLARE INDICES

Includes all Flares

FEBRUARY 1980

Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
800201.	515.24	20.1	800211.	80.24	24.0	800221.	79.83	22.7
800202.	160.87	23.6	800212.	135.90	24.0	800222.	16.10	24.0
800203.	410.69	21.3	800213.	183.31	23.1	800223.	54.73	24.0
800204.	184.68	23.5	800214.	25.22	21.8	800224.	33.83	24.0
800205.	110.83	23.9	800215.	295.72	22.6	800225.	69.09	24.0
800206.	399.33	19.1	800216.	73.76	23.0	800226.	89.15	24.0
800207.	333.98	22.9	800217.	48.24	23.9	800227.	103.66	24.0
800208.	192.37	24.0	800218.	42.74	22.7	800228.	113.05	24.0
800209.	106.08	23.3	800219.	119.45	23.1	800229.	180.30	23.7
800210.	214.08	23.9	800220.	124.52	22.9			

When no Flare Index is given, it is 0 for that day.

SGD 447 Part II (Comprehensive)

MISCELLANEOUS DATA

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ACTIVE REGIONS
CARRINGTON ROTATION 1707
(April 4 to May 1, 1981)

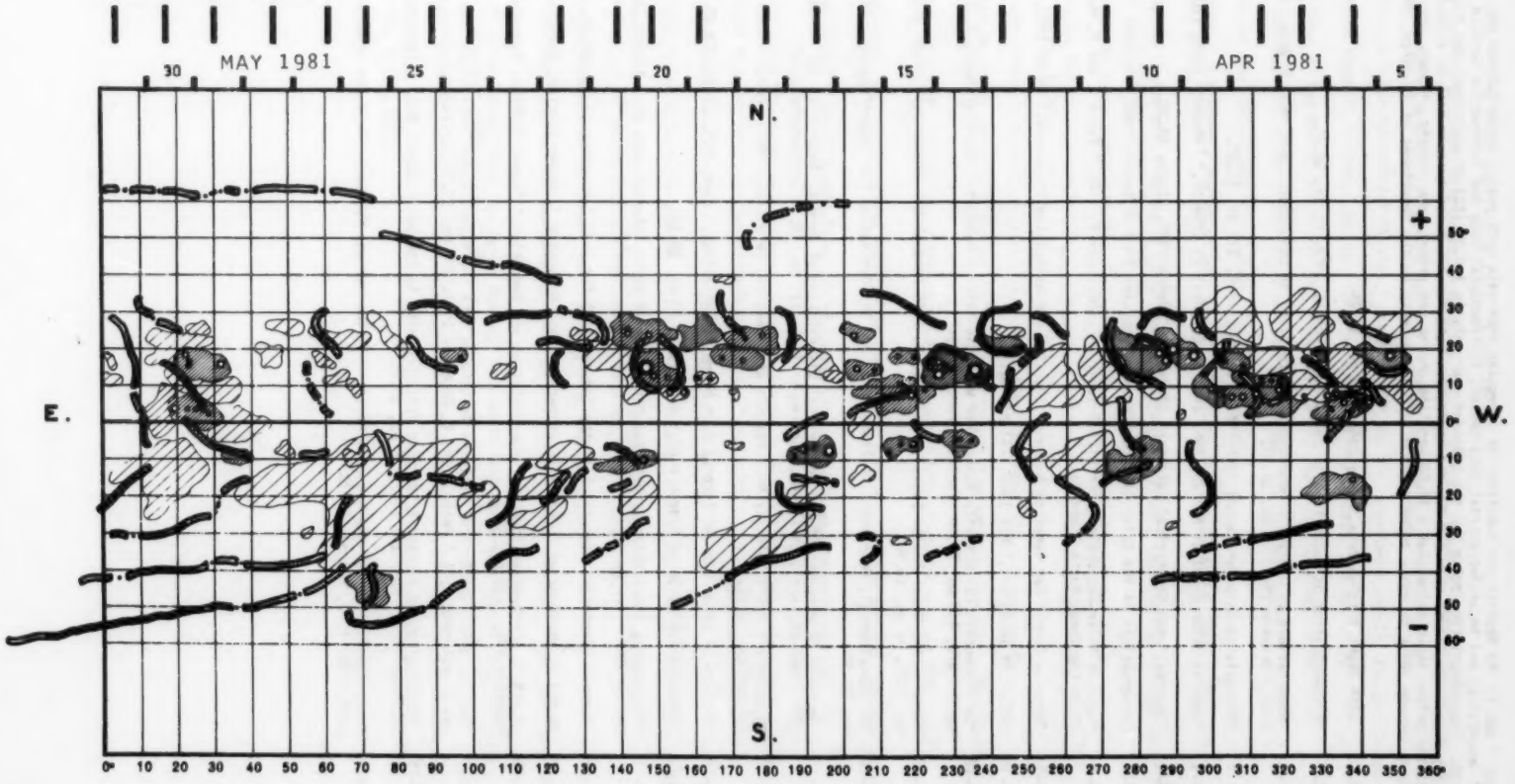
Region No.	Coordinates Lat.	Coordinates Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1706	Activity at West Limb
1	19°N	345	3	>6		7	decreasing
2	13°N	343	1	>6	x	3-5	decreasing
3	5°N	336	4	>6			stable
4	16°S	334	2	>6			decreasing
5	20°S	329	2	-4			decreasing
6	11°N	325	3	>6		12	decreasing
7	27°N	325	1	>6	x		dispersed
8	6°N	318	1	>6	x	12	decreasing
9	11°N	314	3	>6			decreasing
10	18°N	311	1	>6	x		dispersed
11	8°N	307	5	>6			stable
12	17°N	306	2	-1			decreasing
13	9°N	299	2	+2			decreasing
14	20°N	290	4	>6			decreasing
15	10°N	283	1	>6	x		dispersed
16	10°S	280	1	>6	x	17	decreasing
17	19°N	280	4	>6			decreasing
18	14°N	270	1	>6	x	18	decreasing
19	8°S	250	1	+1	x		disappeared
20	23°S	250	1	+5	x		disappeared
21	25°N	244	1	>6	x		disappeared
22	22°N	242	2	>6			decreasing
23	4°S	233	2	0			decreasing
24	5°S	231	1	+6	x		decreasing
25	15°N	231	6	>6			decreasing
26	9°N	223	2	+1			disappeared
27	18°N	217	2	-3			decreasing
28	5°S	216	2	>6			decreasing
29	31°S	216	1	+2	x		disappeared
30	6°N	215	3	>6			decreasing
31	11°N	213	3	>6		26	decreasing
32	15°N	206	2	>6			decreasing
33	25°N	204	2	0			decreasing
34	13°N	198	1	+1	x		decreasing
35	7°S	192	4	+5			decreasing
36	18°N	191	1	>6	x		dispersed
37	19°S	190	1	>6	x		disappeared
38	23°N	176	2	>6			decreasing
39	18°N	172	2	>6			decreasing
40	6°S	171	1	+3	x		disappeared
41	8°N	171	1	-4	x		?
42	39°N	168	1	>6	x		disappeared
43	12°N	163	2	+1			decreasing
44	25°N	161	1	>6	x	32	dispersed
45	9°N	155	3	0			decreasing
46	14°N	150	4	>6			increasing
47	25°N	146	3	>6			decreasing
48	11°S	142	3	>6			decreasing
49	16°N	142	1	>6	x		dispersed
50	24°N	130	1	>6	x		decreasing
51	17°S	119	1	>6	x		dispersed
52	25°S	119	1	>6	x		dispersed
53	14°N	109	1	0	x		disappeared
54	20°N	101	1	>6	x		dispersed
55	5°N	97	1	-4	x		?
56	14°S	95	2	>6	x		dispersed
57	19°N	95	2	>6			decreasing
58	44°S	72	1	>6	x		dispersed
59	10°S	69	1	>6	x		dispersed
60	10°N	68	1	>6	x		disappeared
61	22°N	65	1	>6	x		dispersed
62	12°N	64	1	0	x		decreasing
63	17°N	60	1	>6	x		dispersed
64	1°S	37	1	>6	x		decreasing
65	10°S	37	2	-3			decreasing
66	9°N	27	1	>6	x		dispersed
67	16°N	27	4	>6			decreasing
68	25°N	26	1	>6			decreasing
69	3°N	25	4	>6			decreasing
70	20°N	20	1	>6	x		dispersed
71	3°N	17	1	>6	x		decreasing
72	14°S	16	1	>6	x		dispersed
73	12°N	3	1	>6	x		decreasing
74	16°N	2	1	>6	x		disappeared

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1707

APRIL 4 - MAY 1, 1981

MEUDON OBSERVATORY



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